

APPENDICES

APPENDIX A

TABLES

Table 1. All DEGs Bovine Select to Standard muscle tissue

Gene Code	log2Fold Change	padj	Gene Abbreviation	Gene Name
ENSBTAG00000010015	1.1989	0.0108	NMRAL1	NmrA like redox sensor 1 [Source:VGNC Symbol;Acc:VGNC:32134]
ENSBTAG00000002836	0.7523	0.0108	TAF3	TATA-box binding protein associated factor 3 [Source:VGNC Symbol;Acc:VGNC:35574]
ENSBTAG00000021298	-1.8107	0.0168	METTL11B	Bos taurus methyltransferase like 11B (METTL11B), mRNA. [Source:RefSeq mRNA;Acc:NM_001192536]
ENSBTAG00000017328	-2.7913	0.0385	PTI	pancreatic trypsin inhibitor [Source:NCBI gene;Acc:404172]
ENSBTAG00000045727	-1.7144	0.0385	EPPK1	epiplakin 1 [Source:HGNC Symbol;Acc:HGNC:15577]
ENSBTAG00000018767	1.1127	0.0389	RTP3	receptor transporter protein 3 [Source:VGNC Symbol;Acc:VGNC:54478]
ENSBTAG00000015949	1.2768	0.0391	-	cystatin-13 [Source:NCBI gene;Acc:531692]
ENSBTAG00000005077	-0.7155	0.0484	CXCL12	Bos taurus C-X-C motif chemokine ligand 12 (CXCL12), mRNA. [Source:RefSeq mRNA;Acc:NM_001113174]
novel.811	1.9902	0.0534	-	-
ENSBTAG00000020590	0.7968	0.0534	FZD2	frizzled class receptor 2 [Source:VGNC Symbol;Acc:VGNC:29167]
ENSBTAG00000006921	-0.7532	0.0534	ABCA6	ATP binding cassette subfamily A member 6 [Source:VGNC Symbol;Acc:VGNC:25460]
ENSBTAG00000005980	0.5463	0.0534	RREB1	ras responsive element binding protein 1 [Source:VGNC Symbol;Acc:VGNC:34162]
ENSBTAG00000020884	-1.0589	0.0534	CASP4	Bos taurus caspase 4, apoptosis-related cysteine peptidase (CASP4), mRNA. [Source:RefSeq mRNA;Acc:NM_176638]
ENSBTAG00000008483	-0.7791	0.0534	CALCRL	Bos taurus calcitonin receptor like receptor (CALCRL), mRNA. [Source:RefSeq mRNA;Acc:NM_001102107]
ENSBTAG00000026882	-1.2560	0.0763	-	-
ENSBTAG00000015543	0.6001	0.0827	ARHGAP35	Rho GTPase activating protein 35 [Source:VGNC Symbol;Acc:VGNC:26092]
ENSBTAG00000009599	-5.2529	0.0827	-	lipocalin 1 [Source:NCBI gene;Acc:511158]
novel.402	-0.9374	0.0864	-	-

novel.1264	-1.4396	0.0864	-	-	Bos taurus GABA type A receptor associated protein like 1 (GABARAPL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001033616]
ENSBTAG00000011765	-0.5168	0.0864	GABARAPL1		
ENSBTAG00000005622	-1.0024	0.0977	LITAF		Bos taurus lipopolysaccharide induced TNF factor (LITAF), mRNA. [Source:RefSeq mRNA;Acc:NM_001046252]

Table 2. All DEGs Bovine Choice to Select muscle tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSBTAG00000020865	1.1981	0.0000	PELI1	Bos taurus pellino E3 ubiquitin protein ligase 1 (PELI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078004]
ENSBTAG00000020620	1.7429	0.0001	RGS2	Regulator of G-protein signaling 2 [Source:UniProtKB/Swiss-Prot;Acc:Q0P5H5]
novel.411	2.1500	0.0002	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000017661	1.5367	0.0009	RFX2	Bos taurus regulatory factor X2 (RFX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102172]
ENSBTAG00000036101	-1.1529	0.0094	-	kynurenine aminotransferase 1 [Source:NCBI gene;Acc:528582]
ENSBTAG00000009020	0.8515	0.0268	CRIM1	Bos taurus cysteine rich transmembrane BMP regulator 1 (CRIM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205298]
ENSBTAG00000009021	0.5149	0.0446	FEZ2	Bos taurus fasciculation and elongation protein zeta 2 (FEZ2), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001193050]
ENSBTAG00000001867	0.8674	0.0539	SACS	sacsin molecular chaperone [Source:VGNC Symbol;Acc:VGNC:34260]
ENSBTAG00000034222	1.0121	0.0539	CAB39L	calcium binding protein 39 like [Source:VGNC Symbol;Acc:VGNC:26662]
ENSBTAG00000008625	-0.5818	0.0561	PLEKHF1	Bos taurus pleckstrin homology and FYVE domain containing 1 (PLEKHF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001082468]
novel.74	-1.3845	0.0561	-	-
ENSBTAG00000004046	-0.8252	0.0561	DTX4	deltex E3 ubiquitin ligase 4 [Source:VGNC Symbol;Acc:VGNC:54867]
ENSBTAG00000001945	1.0952	0.0561	ARG2	arginase 2 [Source:VGNC Symbol;Acc:VGNC:26071]
ENSBTAG00000003604	0.9739	0.0736	ADAMTSL4	Bos taurus ADAMTS like 4 (ADAMTSL4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101061]
ENSBTAG000000052414	-1.7219	0.0899	HAP1	huntingtin associated protein 1 [Source:HGNC Symbol;Acc:HGNC:4812]
novel.692	-1.0743	0.0905	-	-

ENSBTAG00000048969	3.6458	0.0932	-	-
ENSBTAG00000039080	1.8718	0.0990	SLC22A3	solute carrier family 22 member 3 [Source:VGNC Symbol;Acc:VGNC:34727]
novel.1250	1.7756	0.0990	-	-
ENSBTAG00000015888	0.8084	0.0990	PDE7B	phosphodiesterase 7B [Source:VGNC Symbol;Acc:VGNC:32686]
ENSBTAG00000019044	0.4514	0.0990	BAIAP2	Bos taurus BAI1 associated protein 2 (BAIAP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001017937]
ENSBTAG00000000225	-0.5131	0.0990	POLB	Bos taurus DNA polymerase beta (POLB), mRNA. [Source:RefSeq mRNA;Acc:NM_001034764]
ENSBTAG00000009599	4.5251	0.0990	-	lipocalin 1 [Source:NCBI gene;Acc:511158]

Table 3. All DEGs Bovine Choice to Standard muscle tissue

Gene Code	log2Fold Change	padj	Gene Abbreviation	Gene Name
ENSBTAG00000020865	1.0559	5E-08	PELI1	Bos taurus pellino E3 ubiquitin protein ligase 1 (PELI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078004]
ENSBTAG00000002880	0.9063	1E-07	SORBS1	Bos taurus sorbin and SH3 domain containing 1 (SORBS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075169]
ENSBTAG00000034222	1.6757	2E-06	CAB39L	calcium binding protein 39 like [Source:VGNC Symbol;Acc:VGNC:26662]
novel.629	2.8455	2E-06	-	-
ENSBTAG00000017661	1.5950	1E-05	RFX2	Bos taurus regulatory factor X2 (RFX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102172]
ENSBTAG00000019107	1.3339	1E-05	GAS7	Bos taurus growth arrest specific 7 (GAS7), mRNA. [Source:RefSeq mRNA;Acc:NM_001102280]
ENSBTAG00000008518	0.8269	2E-05	MED25	Bos taurus mediator complex subunit 25 (MED25), mRNA. [Source:RefSeq mRNA;Acc:NM_001082445]
ENSBTAG00000011909	0.9851	2E-05	ACVR1	activin A receptor type 1 [Source:VGNC Symbol;Acc:VGNC:25592]
ENSBTAG00000019822	0.9584	5E-05	TPPP3	tubulin polymerization promoting protein family member 3 [Source:VGNC Symbol;Acc:VGNC:36260]
novel.411	2.9836	5E-05	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000021298	-2.2726	0.0001	METTL11B	Bos taurus methyltransferase like 11B (METTL11B), mRNA. [Source:RefSeq mRNA;Acc:NM_001192536]
ENSBTAG00000004899	1.8015	0.0001	ABLIM1	actin binding LIM protein 1 [Source:VGNC Symbol;Acc:VGNC:55931]
ENSBTAG00000048969	3.5835	0.0001	-	-
ENSBTAG00000015980	1.2642	0.0001	FASN	fatty acid synthase [Source:VGNC Symbol;Acc:VGNC:28871]
ENSBTAG00000009020	1.0428	0.0002	CRIM1	Bos taurus cysteine rich transmembrane BMP regulator 1 (CRIM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205298]

ENSBTAG00000044135	-0.8129	0.0004	PIGO	phosphatidylinositol glycan anchor biosynthesis class O [Source:VGNC Symbol;Acc:VGNC:32874]
ENSBTAG00000018399	3.1323	0.0004	MYH15	myosin heavy chain 15 [Source:VGNC Symbol;Acc:VGNC:50161]
ENSBTAG00000049714	2.6576	0.0005	-	-
ENSBTAG00000007434	-0.7091	0.0005	CD300LG	CD300 molecule like family member g [Source:VGNC Symbol;Acc:VGNC:27024]
ENSBTAG00000003604	1.1640	0.0006	ADAMTSL4	Bos taurus ADAMTS like 4 (ADAMTSL4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101061]
ENSBTAG00000055207	1.0382	0.0007	SCD	Bos taurus stearyl-CoA desaturase (SCD), mRNA. [Source:RefSeq mRNA;Acc:NM_173959]
ENSBTAG00000019302	1.1131	0.0007	BCL2	BCL2, apoptosis regulator [Source:VGNC Symbol;Acc:VGNC:26445]
ENSBTAG00000016279	-1.2198	0.0009	EMILIN3	elastin microfibril interfacier 3 [Source:VGNC Symbol;Acc:VGNC:28475]
ENSBTAG00000021910	0.6753	0.0010	TBL1XR1	Bos taurus transducin beta like 1 X-linked receptor 1 (TBL1XR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001193029]
ENSBTAG00000002469	-0.6604	0.0010	KANK3	KN motif and ankyrin repeat domains 3 [Source:VGNC Symbol;Acc:VGNC:30391]
ENSBTAG00000021341	0.5218	0.0010	BTBD1	BTB domain containing 1 [Source:VGNC Symbol;Acc:VGNC:26583]
ENSBTAG00000048620	-0.8281	0.0011	-	-
ENSBTAG00000035998	1.3698	0.0011	CKB	creatine kinase B [Source:VGNC Symbol;Acc:VGNC:27384]
ENSBTAG00000003959	0.8954	0.0014	ARHGAP24	Bos taurus Rho GTPase activating protein 24 (ARHGAP24), mRNA. [Source:RefSeq mRNA;Acc:NM_001102234]
ENSBTAG00000032057	-4.0174	0.0015	-	-
ENSBTAG00000019954	1.0368	0.0016	ABHD2	Bos taurus abhydrolase domain containing 2 (ABHD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001015549]
ENSBTAG00000008665	0.9736	0.0024	DIXDC1	DIX domain containing 1 [Source:VGNC Symbol;Acc:VGNC:28077]

ENSBTAG00000047147	0.7519	0.0024	CRYBG3	crystallin beta-gamma domain containing 3 [Source:NCBI gene;Acc:516526]
novel.1051	-1.1915	0.0025	-	-
ENSBTAG00000000140	0.9902	0.0025	EPHX1	epoxide hydrolase 1 [Source:VGNC Symbol;Acc:VGNC:28541]
ENSBTAG00000000993	-0.8097	0.0027	N4BP2L1	NEDD4 binding protein 2 like 1 [Source:VGNC Symbol;Acc:VGNC:53826]
ENSBTAG00000005946	0.6318	0.0027	USP13	Bos taurus ubiquitin specific peptidase 13 (USP13), mRNA. [Source:RefSeq mRNA;Acc:NM_001191266]
ENSBTAG00000045727	-1.6012	0.0031	EPPK1	epiplakin 1 [Source:HGNC Symbol;Acc:HGNC:15577]
novel.1071	-0.9916	0.0032	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000021741	0.6291	0.0032	RPS6KA2	Bos taurus ribosomal protein S6 kinase A2 (RPS6KA2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192478]
ENSBTAG00000016103	0.6909	0.0033	CBFB	Bos taurus core-binding factor subunit beta (CBFB), mRNA. [Source:RefSeq mRNA;Acc:NM_001191435]
ENSBTAG00000020272	0.6729	0.0033	SIK2	Bos taurus salt inducible kinase 2 (SIK2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192277]
ENSBTAG00000015119	0.6645	0.0033	SIK3	SIK family kinase 3 [Source:VGNC Symbol;Acc:VGNC:34620]
ENSBTAG00000010375	0.4514	0.0035	MSL1	male specific lethal 1 homolog [Source:VGNC Symbol;Acc:VGNC:31698]
ENSBTAG00000033835	-2.0152	0.0036	MPZ	Bos taurus myelin protein zero (MPZ), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001079507]
ENSBTAG00000024960	-0.8211	0.0038	-	antigen-presenting glycoprotein CD1d [Source:NCBI gene;Acc:782367]
ENSBTAG00000003449	-0.7522	0.0038	KCP	kielin/chordin-like protein [Source:VGNC Symbol;Acc:VGNC:53650]
ENSBTAG00000000225	-0.6977	0.0041	POLB	Bos taurus DNA polymerase beta (POLB), mRNA. [Source:RefSeq mRNA;Acc:NM_001034764]
ENSBTAG00000003581	0.9302	0.0043	SETD7	SET domain containing lysine methyltransferase 7 [Source:VGNC Symbol;Acc:VGNC:34497]

ENSBTAG00000000071	-5.7734	0.0047	PMP2	peripheral myelin protein 2 [Source:VGNC Symbol;Acc:VGNC:53876]
ENSBTAG00000012219	0.7634	0.0063	CSPG4	Bos taurus chondroitin sulfate proteoglycan 4 (CSPG4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192782]
novel.856	-2.2840	0.0072	-	-
ENSBTAG00000013303	0.5823	0.0074	ACSS2	Bos taurus acyl-CoA synthetase short chain family member 2 (ACSS2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105339]
ENSBTAG00000010068	-0.9299	0.0077	REEP2	Bos taurus receptor accessory protein 2 (REEP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046325]
ENSBTAG00000005615	-0.8512	0.0080	-	carcinoembryonic antigen related cell adhesion molecule 1 [Source:NCBI gene;Acc:404118]
ENSBTAG00000000945	-0.6804	0.0086	ATP2C2	ATPase secretory pathway Ca ²⁺ transporting 2 [Source:VGNC Symbol;Acc:VGNC:26297]
ENSBTAG00000011666	2.8182	0.0088	THRSP	Bos taurus thyroid hormone responsive (THRSP), mRNA. [Source:RefSeq mRNA;Acc:NM_001040533]
ENSBTAG00000024803	0.7254	0.0091	ENDOD1	Bos taurus endonuclease domain containing 1 (ENDOD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001102519]
ENSBTAG00000047420	-0.7890	0.0091	BTNL9	Bos taurus butyrophilin like 9 (BTNL9), mRNA. [Source:RefSeq mRNA;Acc:NM_001103345]
ENSBTAG00000000603	-0.6188	0.0109	JAM2	junctional adhesion molecule 2 [Source:VGNC Symbol;Acc:VGNC:50011]
ENSBTAG00000005980	0.5513	0.0109	RREB1	ras responsive element binding protein 1 [Source:VGNC Symbol;Acc:VGNC:34162]
ENSBTAG00000000820	-0.6490	0.0119	GNG11	Bos taurus G protein subunit gamma 11 (GNG11), mRNA. [Source:RefSeq mRNA;Acc:NM_001024523]
ENSBTAG00000020198	0.9327	0.0123	METRNL	meteorin, glial cell differentiation regulator [Source:VGNC Symbol;Acc:VGNC:31398]

ENSBTAG00000014576	-0.6896	0.0124	GUCY1A1	guanylate cyclase 1 soluble subunit alpha 1 [Source:VGNC Symbol;Acc:VGNC:29720]
ENSBTAG00000013347	0.7776	0.0126	DMPK	DM1 protein kinase [Source:VGNC Symbol;Acc:VGNC:28109]
ENSBTAG00000026684	0.7017	0.0126	SYNC	Bos taurus syncoilin, intermediate filament protein (SYNC), mRNA. [Source:RefSeq mRNA;Acc:NM_001109803]
ENSBTAG00000014707	-2.1799	0.0137	ISG15	Bos taurus ISG15 ubiquitin-like modifier (ISG15), mRNA. [Source:RefSeq mRNA;Acc:NM_174366]
ENSBTAG00000009667	0.5083	0.0137	SLC25A46	solute carrier family 25 member 46 [Source:VGNC Symbol;Acc:VGNC:34771]
ENSBTAG00000001564	0.5874	0.0137	PDE4DIP	phosphodiesterase 4D interacting protein [Source:VGNC Symbol;Acc:VGNC:55072]
ENSBTAG00000009127	0.6706	0.0137	TSPYL4	Bos taurus TSPY like 4 (TSPYL4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101064]
ENSBTAG00000020379	0.6925	0.0137	AREL1	Bos taurus apoptosis resistant E3 ubiquitin protein ligase 1 (AREL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076165]
ENSBTAG00000010368	-0.6343	0.0137	TPST2	Bos taurus tyrosylprotein sulfotransferase 2 (TPST2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035429]
ENSBTAG00000015888	1.1200	0.0139	PDE7B	phosphodiesterase 7B [Source:VGNC Symbol;Acc:VGNC:32686]
ENSBTAG00000046333	0.7843	0.0139	C4orf54	chromosome 6 C4orf54 homolog [Source:NCBI gene;Acc:101904203]
ENSBTAG00000020126	-0.5733	0.0139	MYO10	Bos taurus myosin X (MYO10), mRNA. [Source:RefSeq mRNA;Acc:NM_174394]
ENSBTAG00000021818	0.5965	0.0140	ADGRE5	adhesion G protein-coupled receptor E5 [Source:VGNC Symbol;Acc:VGNC:55196]
novel.1250	2.0553	0.0141	-	-
novel.927	1.8574	0.0143	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
novel.572	-1.0362	0.0143	-	-

ENSBTAG00000020598	1.2847	0.0158	PPP2R2C	protein phosphatase 2 regulatory subunit Bgamma [Source:VGNC Symbol;Acc:VGNC:33257]
ENSBTAG00000006492	-0.6004	0.0158	PI4K2B	Bos taurus phosphatidylinositol 4-kinase type 2 beta (PI4K2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001102064]
ENSBTAG00000023648	-1.6023	0.0158	-	Bos taurus ecto-ADP-ribosyltransferase 5-like (LOC618664), mRNA. [Source:RefSeq mRNA;Acc:NM_001076515]
ENSBTAG00000052247	1.0150	0.0159	TPPP	Bos taurus tubulin polymerization promoting protein (TPPP), mRNA. [Source:RefSeq mRNA;Acc:NM_173976]
ENSBTAG00000021934	0.9194	0.0168	RETSAT	Bos taurus retinol saturase (RETSAT), mRNA. [Source:RefSeq mRNA;Acc:NM_001102279]
ENSBTAG00000015108	-0.5877	0.0175	USHBP1	Bos taurus USH1 protein network component harmonin binding protein 1 (USHBP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077137]
ENSBTAG00000054628	0.5806	0.0176	-	prostate transmembrane protein, androgen induced 1 [Source:NCBI gene;Acc:617469]
ENSBTAG00000040215	0.5659	0.0176	EIF4G3	eukaryotic translation initiation factor 4 gamma 3 [Source:VGNC Symbol;Acc:VGNC:28417]
ENSBTAG00000004413	0.7952	0.0176	RHOBTB3	Rho related BTB domain containing 3 [Source:VGNC Symbol;Acc:VGNC:33946]
ENSBTAG00000053071	-0.6594	0.0176	-	-
ENSBTAG00000006234	-0.5452	0.0176	NPR1	natriuretic peptide receptor 1 [Source:VGNC Symbol;Acc:VGNC:32213]
ENSBTAG00000011593	0.4278	0.0176	QKI	QKI, KH domain containing RNA binding [Source:VGNC Symbol;Acc:VGNC:33597]
ENSBTAG00000005077	-0.7330	0.0176	CXCL12	Bos taurus C-X-C motif chemokine ligand 12 (CXCL12), mRNA. [Source:RefSeq mRNA;Acc:NM_001113174]
ENSBTAG00000008063	0.7980	0.0176	PPARA	peroxisome proliferator activated receptor alpha [Source:VGNC Symbol;Acc:VGNC:33181]

ENSBTAG00000010392	1.3719	0.0176	ESRRG	estrogen related receptor gamma [Source:VGNC Symbol;Acc:VGNC:28610]
novel.436	3.4779	0.0176	-	-
ENSBTAG00000006345	0.7562	0.0176	ART1	Bos taurus ADP-ribosyltransferase 1 (ART1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098098]
ENSBTAG00000004034	0.9534	0.0176	SESN3	sestrin 3 [Source:VGNC Symbol;Acc:VGNC:34490]
ENSBTAG00000009021	0.4926	0.0176	FEZ2	Bos taurus fasciculation and elongation protein zeta 2 (FEZ2), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001193050]
ENSBTAG00000004406	0.5523	0.0176	MSI2	musashi RNA binding protein 2 [Source:HGNC Symbol;Acc:HGNC:18585]
ENSBTAG00000016520	-1.3183	0.0183	-	tryptase-2-like [Source:NCBI gene;Acc:786948]
ENSBTAG00000013658	0.5810	0.0191	ERC1	ELKS/RAB6-interacting/CAST family member 1 [Source:VGNC Symbol;Acc:VGNC:28566]
ENSBTAG00000003253	-1.5090	0.0201	NPPC	natriuretic peptide C [Source:VGNC Symbol;Acc:VGNC:32212]
ENSBTAG00000013341	0.5402	0.0203	GYG2	glycogenin 2 [Source:VGNC Symbol;Acc:VGNC:29729]
ENSBTAG00000024874	2.1707	0.0212	MAD2L1	mitotic arrest deficient 2 like 1 [Source:HGNC Symbol;Acc:HGNC:6763]
ENSBTAG00000049909	0.9299	0.0212	AGBL1	ATP/GTP binding protein like 1 [Source:HGNC Symbol;Acc:HGNC:26504]
ENSBTAG00000031188	1.9609	0.0212	ADIG	adipogenin [Source:VGNC Symbol;Acc:VGNC:25676]
ENSBTAG00000054649	-2.7531	0.0213	-	GTPase, IMAP family member 4-like [Source:NCBI gene;Acc:768255]
ENSBTAG00000020456	0.5547	0.0221	AGPAT3	Bos taurus 1-acylglycerol-3-phosphate O-acyltransferase 3 (AGPAT3), mRNA. [Source:RefSeq mRNA;Acc:NM_001038046]
ENSBTAG00000035995	0.7106	0.0225	TNFAIP2	Bos taurus tumor necrosis factor, alpha-induced protein 2 (TNFAIP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191189]
ENSBTAG00000000105	-0.4930	0.0226	RIT1	Bos taurus Ras like without CAAX 1 (RIT1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098078]

ENSBTAG0000006828	-0.6921	0.0243	RAPGEF3	Bos taurus Rap guanine nucleotide exchange factor 3 (RAPGEF3), mRNA. [Source:RefSeq mRNA;Acc:NM_001080302]
ENSBTAG00000016546	-0.9451	0.0243	PARP12	poly(ADP-ribose) polymerase family member 12 [Source:NCBI gene;Acc:513185]
ENSBTAG00000031548	-0.7443	0.0243	-	uncharacterized LOC514257 [Source:NCBI gene;Acc:514257]
ENSBTAG00000052957	0.6668	0.0253	MON1B	MON1 homolog B, secretory trafficking associated [Source:NCBI gene;Acc:510379]
ENSBTAG00000021067	0.3520	0.0254	ACTR1A	Bos taurus ARP1 actin related protein 1 homolog A (ACTR1A), mRNA. [Source:RefSeq mRNA;Acc:NM_001193248]
ENSBTAG00000012719	0.6877	0.0254	UBTD1	ubiquitin domain containing 1 [Source:VGNC Symbol;Acc:VGNC:36620]
novel.241	1.3921	0.0258	-	-
ENSBTAG00000019927	0.5697	0.0259	CYB5R1	Bos taurus cytochrome b5 reductase 1 (CYB5R1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034518]
ENSBTAG00000034995	-0.7831	0.0264	ITPRIPL1	ITPRIP like 1 [Source:VGNC Symbol;Acc:VGNC:30350]
ENSBTAG00000015543	0.7092	0.0272	ARHGAP35	Rho GTPase activating protein 35 [Source:VGNC Symbol;Acc:VGNC:26092]
ENSBTAG00000014693	-0.6287	0.0272	TMEM88	Bos taurus transmembrane protein 88 (TMEM88), mRNA. [Source:RefSeq mRNA;Acc:NM_001098378]
ENSBTAG00000048692	-0.8464	0.0272	-	-
ENSBTAG00000049619	0.7631	0.0281	GFOD1	glucose-fructose oxidoreductase domain containing 1 [Source:NCBI gene;Acc:104968712]
ENSBTAG00000046498	0.4125	0.0283	SUN1	Sad1 and UNC84 domain containing 1 [Source:NCBI gene;Acc:100847692]
ENSBTAG00000009302	0.7963	0.0283	RCAN2	Bos taurus regulator of calcineurin 2 (RCAN2), transcript variant 2, mRNA. [Source:RefSeq mRNA;Acc:NM_001015632]
ENSBTAG00000002515	-1.3018	0.0283	-	dynein axonemal assembly factor 3 [Source:NCBI gene;Acc:104968460]

ENSBTAG00000014001	1.0265	0.0284	MAP1A	microtubule associated protein 1A [Source:VGNC Symbol;Acc:VGNC:31177]
ENSBTAG00000012330	-0.6486	0.0294	B2M	beta-2-microglobulin [Source:NCBI gene;Acc:280729]
ENSBTAG00000017108	0.5453	0.0296	OTUD3	OTU deubiquitinase 3 [Source:VGNC Symbol;Acc:VGNC:32494]
ENSBTAG00000034206	-0.5817	0.0301	EMCN	Bos taurus endomucin (EMCN), mRNA. [Source:RefSeq mRNA;Acc:NM_001076420]
ENSBTAG00000020117	0.5217	0.0305	ZBTB7A	Bos taurus zinc finger and BTB domain containing 7A (ZBTB7A), mRNA. [Source:RefSeq mRNA;Acc:NM_001191247]
ENSBTAG00000012317	-0.4615	0.0307	PNP	Bos taurus purine nucleoside phosphorylase (PNP), mRNA. [Source:RefSeq mRNA;Acc:NM_001007818]
ENSBTAG00000010694	1.1169	0.0312	BICC1	BicC family RNA binding protein 1 [Source:VGNC Symbol;Acc:VGNC:26490]
ENSBTAG00000012741	0.5308	0.0312	CCPG1	cell cycle progression 1 [Source:VGNC Symbol;Acc:VGNC:26982]
ENSBTAG00000020696	-1.5389	0.0313	HECW2	HECT, C2 and WW domain containing E3 ubiquitin protein ligase 2 [Source:VGNC Symbol;Acc:VGNC:56116]
ENSBTAG00000049125	-0.6136	0.0313	-	glycosylphosphatidylinositol anchored high density lipoprotein binding protein 1 [Source:NCBI gene;Acc:512826]
ENSBTAG00000013495	0.5211	0.0317	WDFY3	WD repeat and FYVE domain containing 3 [Source:VGNC Symbol;Acc:VGNC:36877]
novel.599	2.0136	0.0320	-	-
ENSBTAG00000016779	0.4181	0.0330	CLIP1	Bos taurus CAP-Gly domain containing linker protein 1 (CLIP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192823]
novel.402	-0.7927	0.0330	-	-
ENSBTAG00000002485	0.4321	0.0333	TNS1	tensin 1 [Source:VGNC Symbol;Acc:VGNC:36207]
ENSBTAG00000020465	-1.3107	0.0337	FERMT1	Bos taurus fermitin family member 1 (FERMT1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206179]
ENSBTAG00000019432	-0.6639	0.0337	-	intercellular adhesion molecule 2 [Source:NCBI gene;Acc:616254]

ENSBTAG00000004268	-0.4138	0.0343	TRAPPC5	trafficking protein particle complex 5 [Source:VGNC Symbol;Acc:VGNC:36291]
ENSBTAG00000015794	0.7899	0.0355	NES	Bos taurus nestin (NES), mRNA. [Source:RefSeq mRNA;Acc:NM_001206591]
ENSBTAG00000021009	0.6142	0.0360	TRIM55	tripartite motif containing 55 [Source:VGNC Symbol;Acc:VGNC:36341]
ENSBTAG00000011752	0.6679	0.0361	SYNM	Bos taurus synemin, intermediate filament protein (SYNM), mRNA. [Source:RefSeq mRNA;Acc:NM_001191453]
ENSBTAG00000017719	0.7635	0.0365	AKAP6	Bos taurus A-kinase anchoring protein 6 (AKAP6), mRNA. [Source:RefSeq mRNA;Acc:NM_001192923]
ENSBTAG00000012285	1.0589	0.0380	ESRRB	estrogen related receptor beta [Source:VGNC Symbol;Acc:VGNC:28609]
ENSBTAG00000000913	-0.4436	0.0382	UQCR10	ubiquinol-cytochrome c reductase, complex III subunit X [Source:VGNC Symbol;Acc:VGNC:36693]
ENSBTAG00000006744	0.4015	0.0416	TMEM131	transmembrane protein 131 [Source:VGNC Symbol;Acc:VGNC:35964]
ENSBTAG00000012565	0.5873	0.0416	PCNX1	pecanex 1 [Source:VGNC Symbol;Acc:VGNC:32638]
ENSBTAG00000009773	0.7691	0.0418	KREMEN1	kringle containing transmembrane protein 1 [Source:VGNC Symbol;Acc:VGNC:53911]
ENSBTAG00000046786	-0.4425	0.0421	UQCRRS1	ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 [Source:VGNC Symbol;Acc:VGNC:53044]
ENSBTAG00000017339	-0.6898	0.0421	RUNX1T1	Bos taurus RUNX1 translocation partner 1 (RUNX1T1), mRNA. [Source:RefSeq mRNA;Acc:NM_001359988]
ENSBTAG00000012615	0.5685	0.0422	ZEB2	zinc finger E-box binding homeobox 2 [Source:VGNC Symbol;Acc:VGNC:56157]
ENSBTAG00000044195	1.2317	0.0422	SDK2	sidekick cell adhesion molecule 2 [Source:VGNC Symbol;Acc:VGNC:34394]
ENSBTAG00000008520	0.6593	0.0422	NFIC	Bos taurus nuclear factor I C (NFIC), mRNA. [Source:RefSeq mRNA;Acc:NM_001024574]

ENSBTAG00000018996	0.7023	0.0438	PRKN	parkin RBR E3 ubiquitin protein ligase [Source:VGNC Symbol;Acc:VGNC:33342]
ENSBTAG00000000439	-0.4593	0.0438	SFSWAP	Bos taurus splicing factor SWAP (SFSWAP), mRNA. [Source:RefSeq mRNA;Acc:NM_001192319]
ENSBTAG00000016776	0.6994	0.0438	BAHCC1	BAH domain and coiled-coil containing 1 [Source:VGNC Symbol;Acc:VGNC:55774]
ENSBTAG00000004347	-0.5690	0.0438	ADGRF5	Bos taurus adhesion G protein-coupled receptor F5 (ADGRF5), mRNA. [Source:RefSeq mRNA;Acc:NM_001193243]
ENSBTAG00000016148	2.0796	0.0438	-	-
ENSBTAG00000003629	-1.1406	0.0440	ASPA	Bos taurus aspartoacylase (ASPA), mRNA. [Source:RefSeq mRNA;Acc:NM_001046033]
ENSBTAG00000037523	0.8060	0.0440	B3GALT6	beta-1,3-galactosyltransferase 6 [Source:VGNC Symbol;Acc:VGNC:26375]
ENSBTAG00000004720	0.9923	0.0460	SULF1	sulfatase 1 [Source:VGNC Symbol;Acc:VGNC:53880]
ENSBTAG00000009694	-0.5785	0.0481	PUS10	Bos taurus pseudouridylate synthase 10 (PUS10), mRNA. [Source:RefSeq mRNA;Acc:NM_001206837]
ENSBTAG00000008978	0.4215	0.0481	USP22	Bos taurus ubiquitin specific peptidase 22 (USP22), mRNA. [Source:RefSeq mRNA;Acc:NM_001166567]
ENSBTAG00000015106	1.4487	0.0491	DSP	Bos taurus desmoplakin (DSP), mRNA. [Source:RefSeq mRNA;Acc:NM_001192368]
ENSBTAG00000005339	-0.5677	0.0501	VEGFA	Bos taurus vascular endothelial growth factor A (VEGFA), transcript variant 4, mRNA. [Source:RefSeq mRNA;Acc:NM_001316956]
ENSBTAG00000011820	0.8516	0.0501	DAPK2	death associated protein kinase 2 [Source:VGNC Symbol;Acc:VGNC:55109]
ENSBTAG00000017850	0.4912	0.0501	ARHGEF6	Rac/Cdc42 guanine nucleotide exchange factor 6 [Source:VGNC Symbol;Acc:VGNC:26120]
ENSBTAG00000030340	0.8685	0.0501	IFFO2	intermediate filament family orphan 2 [Source:NCBI gene;Acc:788579]

ENSBTAG00000001321	-1.2218	0.0501	IL1B	interleukin 1 beta [Source:VGNC Symbol;Acc:VGNC:52787]
ENSBTAG00000049852	-4.6432	0.0504	-	-
ENSBTAG00000015808	0.4852	0.0504	ZNF609	Bos taurus zinc finger protein 609 (ZNF609), mRNA. [Source:RefSeq mRNA;Acc:NM_001193023]
ENSBTAG00000008419	-0.4569	0.0508	PDE2A	Bos taurus phosphodiesterase 2A (PDE2A), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001143846]
ENSBTAG00000004873	-0.4659	0.0513	CCNL2	cyclin L2 [Source:VGNC Symbol;Acc:VGNC:26976]
ENSBTAG00000048160	0.5379	0.0513	TIGD5	tigger transposable element derived 5 [Source:VGNC Symbol;Acc:VGNC:35867]
ENSBTAG00000010677	0.6911	0.0532	LIMCH1	LIM and calponin homology domains 1 [Source:VGNC Symbol;Acc:VGNC:30887]
ENSBTAG00000021210	-0.6464	0.0541	HES2	Bos taurus hes family bHLH transcription factor 2 (HES2), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001199005]
ENSBTAG00000012805	-0.5113	0.0541	TSPAN13	Bos taurus tetraspanin 13 (TSPAN13), mRNA. [Source:RefSeq mRNA;Acc:NM_001035362]
ENSBTAG00000050435	-0.5491	0.0541	-	-
ENSBTAG00000010015	0.9154	0.0548	NMRAL1	NmrA like redox sensor 1 [Source:VGNC Symbol;Acc:VGNC:32134]
ENSBTAG00000007417	0.8350	0.0549	GDF11	growth differentiation factor 11 [Source:VGNC Symbol;Acc:VGNC:29300]
ENSBTAG00000014602	1.0159	0.0549	CAMTA1	calmodulin binding transcription activator 1 [Source:VGNC Symbol;Acc:VGNC:26732]
ENSBTAG00000015220	0.5422	0.0549	AGO4	argonaute 4, RISC catalytic component [Source:VGNC Symbol;Acc:VGNC:25733]
ENSBTAG00000054808	3.0386	0.0549	-	-
ENSBTAG00000021953	0.5872	0.0549	LARGE1	Bos taurus LARGE xylosyl- and glucuronyltransferase 1 (LARGE1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205588]

ENSBTAG00000009510	-0.6239	0.0554	ADRA2B	Bos taurus adrenoceptor alpha 2B (ADRA2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001206628]
ENSBTAG00000012007	-1.0751	0.0554	SOCS2	Bos taurus suppressor of cytokine signaling 2 (SOCS2), mRNA. [Source:RefSeq mRNA;Acc:NM_177523]
ENSBTAG00000009267	0.5734	0.0554	UHRF1BP1	UHRF1 binding protein 1 [Source:VGNC Symbol;Acc:VGNC:36655]
ENSBTAG00000019864	-0.7634	0.0559	MAPK15	mitogen-activated protein kinase 15 [Source:VGNC Symbol;Acc:VGNC:31217]
ENSBTAG00000017147	0.5525	0.0561	AK3	Bos taurus adenylate kinase 3 (AK3), mRNA. [Source:RefSeq mRNA;Acc:NM_174237]
ENSBTAG00000014423	-0.3545	0.0563	-	ribosomal protein L22 [Source:NCBI gene;Acc:616065]
ENSBTAG00000013855	0.4399	0.0563	ORMDL3	Bos taurus ORMDL sphingolipid biosynthesis regulator 3 (ORMDL3), mRNA. [Source:RefSeq mRNA;Acc:NM_001076367]
ENSBTAG00000014178	0.6657	0.0565	RALGAPA2	Ral GTPase activating protein catalytic alpha subunit 2 [Source:VGNC Symbol;Acc:VGNC:33702]
ENSBTAG00000021250	0.5641	0.0569	RALBP1	ralA binding protein 1 [Source:VGNC Symbol;Acc:VGNC:33700]
ENSBTAG00000003300	-0.4731	0.0575	MFGE8	milk fat globule-EGF factor 8 protein [Source:VGNC Symbol;Acc:VGNC:31426]
novel.1176	-0.6679	0.0575	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000027868	0.8469	0.0579	DLG2	discs large MAGUK scaffold protein 2 [Source:NCBI gene;Acc:100851408]
ENSBTAG00000008040	0.5082	0.0580	SPART	spartin [Source:VGNC Symbol;Acc:VGNC:35173]
ENSBTAG00000020124	-0.4425	0.0616	HTRA2	HtrA serine peptidase 2 [Source:VGNC Symbol;Acc:VGNC:30005]
ENSBTAG00000053933	-2.4124	0.0627	-	-
ENSBTAG00000025666	1.7009	0.0628	RPS29	ribosomal protein S29 [Source:VGNC Symbol;Acc:VGNC:34137]
ENSBTAG00000047330	-0.5874	0.0643	FABP5	Bos taurus fatty acid binding protein 5 (FABP5), mRNA. [Source:RefSeq mRNA;Acc:NM_174315]
ENSBTAG00000030425	-0.4869	0.0648	ID3	Bos taurus inhibitor of DNA binding 3, HLH protein (ID3), mRNA. [Source:RefSeq mRNA;Acc:NM_001014950]

ENSBTAG0000006770	-0.9267	0.0655	MTBP	Bos taurus MDM2 binding protein (MTBP), mRNA. [Source:RefSeq mRNA;Acc:NM_001193177]
ENSBTAG00000022004	-0.8894	0.0655	FLNB	Bos taurus filamin B (FLNB), mRNA. [Source:RefSeq mRNA;Acc:NM_001191460]
ENSBTAG00000014005	0.5692	0.0655	PIIP5K1	Bos taurus diphosphoinositol pentakisphosphate kinase 1 (PIIP5K1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105354]
ENSBTAG00000024657	0.5432	0.0655	-	ZFP91 zinc finger protein [Source:NCBI gene;Acc:529006]
ENSBTAG00000017955	-2.0642	0.0660	KCNIP3	potassium voltage-gated channel interacting protein 3 [Source:NCBI gene;Acc:513316]
ENSBTAG00000003763	-1.4732	0.0661	MYO5C	myosin VC [Source:VGNC Symbol;Acc:VGNC:31828]
ENSBTAG00000020050	0.8003	0.0661	MLEC	malectin [Source:VGNC Symbol;Acc:VGNC:31496]
ENSBTAG00000008091	-0.4861	0.0662	SELENBP1	Bos taurus selenium binding protein 1 (SELENBP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046048]
ENSBTAG00000018841	0.8887	0.0662	PTPN3	protein tyrosine phosphatase, non-receptor type 3 [Source:VGNC Symbol;Acc:VGNC:33538]
ENSBTAG00000015378	-1.9448	0.0662	CCDC180	coiled-coil domain containing 180 [Source:NCBI gene;Acc:100847289]
ENSBTAG00000019414	-0.5846	0.0662	CLK4	Bos taurus CDC like kinase 4 (CLK4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192988]
ENSBTAG00000020218	0.3956	0.0671	ANXA7	Bos taurus annexin A7 (ANXA7), mRNA. [Source:RefSeq mRNA;Acc:NM_001075991]
novel.515	1.8505	0.0678	-	-
ENSBTAG00000030913	-1.2123	0.0678	MX1	Bos taurus MX dynamin like GTPase 1 (MX1), mRNA. [Source:RefSeq mRNA;Acc:NM_173940]
novel.219	-1.1874	0.0679	-	PF01359:Transposase (partial DDE domain)
ENSBTAG00000010529	-0.5870	0.0679	FZD6	frizzled class receptor 6 [Source:VGNC Symbol;Acc:VGNC:29170]
ENSBTAG00000012297	-0.6263	0.0689	RIPOR3	RIPOR family member 3 [Source:VGNC Symbol;Acc:VGNC:33984]

ENSBTAG00000003609	-0.6671	0.0699	PBDC1	polysaccharide biosynthesis domain containing 1 [Source:VGNC Symbol;Acc:VGNC:32604]
ENSBTAG00000013653	0.6832	0.0710	NFE2L1	Bos taurus nuclear factor, erythroid 2 like 1 (NFE2L1), mRNA. [Source:RefSeq mRNA;Acc:NM_001102515]
ENSBTAG00000007962	0.5509	0.0713	ATP9A	ATPase phospholipid transporting 9A (putative) [Source:NCBI gene;Acc:516579]
novel.1264	-1.3515	0.0717	-	-
ENSBTAG00000006121	2.3729	0.0717	SBK2	SH3 domain binding kinase family member 2 [Source:VGNC Symbol;Acc:VGNC:34307]
ENSBTAG00000002302	-0.4152	0.0717	CD59	CD59 molecule [Source:VGNC Symbol;Acc:VGNC:54861]
ENSBTAG00000010682	0.5152	0.0717	DDR1	Bos taurus discoidin domain receptor tyrosine kinase 1 (DDR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076012]
ENSBTAG00000011662	-0.5868	0.0717	SOX18	Bos taurus SRY-box 18 (SOX18), mRNA. [Source:RefSeq mRNA;Acc:NM_001075789]
novel.102	-4.2547	0.0717	-	-
ENSBTAG00000005504	0.7589	0.0717	TP53INP2	tumor protein p53 inducible nuclear protein 2 [Source:VGNC Symbol;Acc:VGNC:36237]
ENSBTAG000000045783	-0.5283	0.0735	-	up-regulated during skeletal muscle growth protein 5 [Source:NCBI gene;Acc:101907000]
ENSBTAG00000002392	0.4920	0.0744	-	-
ENSBTAG000000050733	-1.0610	0.0744	ATP6AP1L	ATPase H ⁺ transporting accessory protein 1 like [Source:NCBI gene;Acc:510390]
ENSBTAG00000004246	0.6792	0.0754	H6PD	splA/ryanodine receptor domain and SOCS box containing 1 [Source:NCBI gene;Acc:504407]
ENSBTAG000000050035	-0.7759	0.0754	ZNF226	zinc finger protein 226 [Source:NCBI gene;Acc:789006]
ENSBTAG000000021920	-0.4898	0.0754	SEMA4C	semaphorin 4C [Source:VGNC Symbol;Acc:VGNC:34435]
ENSBTAG00000016758	-0.4524	0.0754	MLH1	mutL homolog 1 [Source:VGNC Symbol;Acc:VGNC:31497]

ENSBTAG00000010422	0.4949	0.0754	MDM2	Bos taurus MDM2 proto-oncogene (MDM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001099107]
ENSBTAG00000003332	0.8014	0.0754	RPP40	Bos taurus ribonuclease P/MRP subunit p40 (RPP40), mRNA. [Source:RefSeq mRNA;Acc:NM_001105402]
ENSBTAG00000016343	0.8562	0.0754	KCNIP2	potassium voltage-gated channel interacting protein 2 [Source:VGNC Symbol;Acc:VGNC:30451]
ENSBTAG00000000656	0.5373	0.0754	NFATC1	nuclear factor of activated T cells 1 [Source:VGNC Symbol;Acc:VGNC:32030]
ENSBTAG00000034493	0.5079	0.0754	C23H6orf106	chromosome 23 C6orf106 homolog [Source:VGNC Symbol;Acc:VGNC:52675]
ENSBTAG00000009617	0.8675	0.0754	SLC2A1	Bos taurus solute carrier family 2 member 1 (SLC2A1), mRNA. [Source:RefSeq mRNA;Acc:NM_174602]
ENSBTAG00000052100	1.0420	0.0771	-	-
ENSBTAG00000020244	-0.6343	0.0779	EFNA1	Bos taurus ephrin A1 (EFNA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034292]
ENSBTAG00000027064	1.0723	0.0779	BTBD11	Bos taurus BTB domain containing 11 (BTBD11), mRNA. [Source:RefSeq mRNA;Acc:NM_001205745]
ENSBTAG00000051618	2.5870	0.0779	PET117	PET117 homolog [Source:NCBI gene;Acc:112449283]
ENSBTAG00000030593	-0.4998	0.0779	RFTN1	raftlin, lipid raft linker 1 [Source:HGNC Symbol;Acc:HGNC:30278]
ENSBTAG00000010786	0.6298	0.0779	TACC2	transforming acidic coiled-coil containing protein 2 [Source:VGNC Symbol;Acc:VGNC:35558]
ENSBTAG00000054662	0.5833	0.0786	FBXL17	F-box and leucine rich repeat protein 17 [Source:NCBI gene;Acc:523504]
ENSBTAG00000053595	-1.8903	0.0787	HOXA9	Bos taurus homeobox A9 (HOXA9), mRNA. [Source:RefSeq mRNA;Acc:NM_001105617]
novel.770	0.5653	0.0787	-	-
ENSBTAG00000007705	-0.6120	0.0794	COLEC12	Bos taurus collectin subfamily member 12 (COLEC12), mRNA. [Source:RefSeq mRNA;Acc:NM_001101843]

ENSBTAG00000046803	0.4828	0.0802	GAS1	growth arrest specific 1 [Source:VGNC Symbol;Acc:VGNC:29256]
ENSBTAG00000020403	0.3871	0.0802	ZMYM2	zinc finger MYM-type containing 2 [Source:VGNC Symbol;Acc:VGNC:56646]
ENSBTAG00000026886	-0.3762	0.0804	ATP5MPL	ATP synthase membrane subunit 6.8PL [Source:VGNC Symbol;Acc:VGNC:49542]
ENSBTAG00000015949	0.9944	0.0811	-	cystatin-13 [Source:NCBI gene;Acc:531692]
ENSBTAG00000014432	-1.0808	0.0814	HNMT	histamine N-methyltransferase [Source:VGNC Symbol;Acc:VGNC:29893]
novel.997	2.7283	0.0814	-	-
ENSBTAG00000014885	0.8885	0.0814	MYOM3	myomesin 3 [Source:VGNC Symbol;Acc:VGNC:31839]
ENSBTAG00000051801	-0.6275	0.0814	-	-
ENSBTAG00000048379	0.4776	0.0815	-	-
ENSBTAG00000000782	-0.4567	0.0827	KDR	kinase insert domain receptor [Source:VGNC Symbol;Acc:VGNC:30535]
ENSBTAG00000021527	0.5305	0.0841	IGF1R	Bos taurus insulin like growth factor 1 receptor (IGF1R), mRNA. [Source:RefSeq mRNA;Acc:NM_001244612]
ENSBTAG00000002394	-0.7019	0.0843	TMEM44	Bos taurus transmembrane protein 44 (TMEM44), mRNA. [Source:RefSeq mRNA;Acc:NM_001099131]
ENSBTAG00000003614	0.6148	0.0848	AP4B1	Bos taurus adaptor related protein complex 4 subunit beta 1 (AP4B1), mRNA. [Source:RefSeq mRNA;Acc:NM_001101950]
ENSBTAG00000037375	-0.5337	0.0854	-	Bos taurus zinc finger protein 547-like (LOC512684), mRNA. [Source:RefSeq mRNA;Acc:NM_001105360]
ENSBTAG00000013042	0.3992	0.0855	EXOC5	Bos taurus exocyst complex component 5 (EXOC5), mRNA. [Source:RefSeq mRNA;Acc:NM_001192711]
ENSBTAG00000005483	0.4356	0.0855	ESYT2	extended synaptotagmin 2 [Source:VGNC Symbol;Acc:VGNC:28614]
ENSBTAG00000038849	0.4407	0.0872	-	-
ENSBTAG00000007704	-0.9011	0.0885	ELOVL7	Bos taurus ELOVL fatty acid elongase 7 (ELOVL7), mRNA. [Source:RefSeq mRNA;Acc:NM_001078042]

novel.439	-0.7664	0.0890	-	PF12114:Period protein 2/3C-terminal region
ENSBTAG00000016675	0.3904	0.0890	ANAPC7	Bos taurus anaphase promoting complex subunit 7 (ANAPC7), mRNA. [Source:RefSeq mRNA;Acc:NM_001192845]
ENSBTAG00000017233	-2.3169	0.0890	-	-
ENSBTAG00000052230	-0.8116	0.0890	-	-
ENSBTAG00000002422	0.4653	0.0904	BCL9	B cell CLL/lymphoma 9 [Source:NCBI gene;Acc:788729]
ENSBTAG00000012073	-0.9978	0.0904	VOPP1	VOPP1, WBP1/VOPP1 family member [Source:VGNC Symbol;Acc:VGNC:49588]
ENSBTAG00000005029	-0.8200	0.0904	TAL1	TAL bHLH transcription factor 1, erythroid differentiation factor [Source:VGNC Symbol;Acc:VGNC:35588]
ENSBTAG00000016979	0.5714	0.0904	PCYT1A	Bos taurus phosphate cytidyltransferase 1, choline, alpha (PCYT1A), mRNA. [Source:RefSeq mRNA;Acc:NM_001105052]
ENSBTAG00000001417	1.3928	0.0907	ACSM1	acyl-CoA synthetase medium chain family member 1 [Source:VGNC Symbol;Acc:VGNC:50046]
ENSBTAG00000038141	-0.4188	0.0907	ADGRG1	Bos taurus adhesion G protein-coupled receptor G1 (ADGRG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001083656]
ENSBTAG00000054688	-0.9504	0.0910	-	SRY-box 7 [Source:NCBI gene;Acc:541256]
ENSBTAG00000010661	0.8916	0.0912	DPYSL3	Bos taurus dihydropyrimidinase like 3 (DPYSL3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101068]
ENSBTAG00000007444	-1.0769	0.0935	MAP3K7CL	MAP3K7 C-terminal like [Source:VGNC Symbol;Acc:VGNC:31201]
novel.1382	-1.0089	0.0941	-	PF01359:Transposase (partial DDE domain)
ENSBTAG00000015938	-0.4407	0.0945	ARAP3	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 3 [Source:NCBI gene;Acc:112447442]
ENSBTAG00000012760	-0.3706	0.0945	NDUFB3	Bos taurus NADH:ubiquinone oxidoreductase subunit B3 (NDUFB3), mRNA. [Source:RefSeq mRNA;Acc:NM_176667]
ENSBTAG00000010362	-0.8041	0.0949	NOSTRIN	nitric oxide synthase trafficking [Source:VGNC Symbol;Acc:VGNC:32176]
ENSBTAG00000048956	0.6828	0.0963	-	-

ENSBTAG00000009713	-0.4029	0.0963	ATP5MD	Bos taurus ATP synthase membrane subunit DAPIT (ATP5MD), mRNA. [Source:RefSeq mRNA;Acc:NM_001113318]
ENSBTAG00000005010	1.2148	0.0963	MXD3	MAX dimerization protein 3 [Source:VGNC Symbol;Acc:VGNC:55224]
ENSBTAG00000021657	0.5011	0.0963	CACNG6	calcium voltage-gated channel auxiliary subunit gamma 6 [Source:VGNC Symbol;Acc:VGNC:26691]
ENSBTAG00000009115	0.6846	0.0963	SPSB4	Bos taurus sPLA/ryanodine receptor domain and SOCS box containing 4 (SPSB4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192337]
ENSBTAG00000015892	-0.3566	0.0963	NDUFB4	Bos taurus NADH:ubiquinone oxidoreductase subunit B4 (NDUFB4), mRNA. [Source:RefSeq mRNA;Acc:NM_175822]
ENSBTAG00000012881	0.3696	0.0966	EIF4G1	eukaryotic translation initiation factor 4 gamma 1 [Source:VGNC Symbol;Acc:VGNC:28415]
ENSBTAG00000048782	-0.5119	0.0966	-	-
ENSBTAG00000039080	1.5123	0.0972	SLC22A3	solute carrier family 22 member 3 [Source:VGNC Symbol;Acc:VGNC:34727]
ENSBTAG00000003634	-0.3462	0.0997	CISD1	Bos taurus CDGSH iron sulfur domain 1 (CISD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034057]
ENSBTAG00000000505	-0.6701	0.0997	KYAT3	Bos taurus kynurenine aminotransferase 3 (KYAT3), mRNA. [Source:RefSeq mRNA;Acc:NM_001075370]

Table 4. All DEGs Bovine Select to Standard adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSBTAG00000046547	1.5939	3E-06	CIDEA	Bos taurus cell death-inducing DFFA-like effector a (CIDEA), mRNA. [Source:RefSeq mRNA;Acc:NM_001083449]
ENSBTAG00000013366	-1.6984	4E-06	NRIP3	Bos taurus nuclear receptor interacting protein 3 (NRIP3), mRNA. [Source:RefSeq mRNA;Acc:NM_001102218]
ENSBTAG00000003504	1.3735	0.0004	GSS	Bos taurus glutathione synthetase (GSS), mRNA. [Source:RefSeq mRNA;Acc:NM_001015630]
ENSBTAG00000007644	0.8263	0.0005	GNG7	Bos taurus G protein subunit gamma 7 (GNG7), mRNA. [Source:RefSeq mRNA;Acc:NM_001113314]
ENSBTAG00000016148	1.3388	0.0006	-	-
ENSBTAG00000025161	1.2114	0.0007	AGPAT2	Bos taurus 1-acylglycerol-3-phosphate O-acyltransferase 2 (AGPAT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001080264]
ENSBTAG00000038865	-1.5795	0.0007	TCEA3	transcription elongation factor A3 [Source:VGNC Symbol;Acc:VGNC:35681]
ENSBTAG00000017366	-1.7758	0.0009	GRB7	Bos taurus growth factor receptor bound protein 7 (GRB7), mRNA. [Source:RefSeq mRNA;Acc:NM_001046014]
ENSBTAG00000030322	1.9230	0.0009	KLHDC7A	kelch domain containing 7A [Source:VGNC Symbol;Acc:VGNC:30637]
ENSBTAG00000013185	1.1849	0.0009	TIMD4	Bos taurus T cell immunoglobulin and mucin domain containing 4 (TIMD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001075320]
ENSBTAG00000001303	-0.9597	0.0009	HSPB8	Bos taurus heat shock protein family B (small) member 8 (HSPB8), mRNA. [Source:RefSeq mRNA;Acc:NM_001014955]
ENSBTAG00000019512	1.4825	0.0009	G6PD	Bos taurus glucose-6-phosphate dehydrogenase (G6PD), mRNA. [Source:RefSeq mRNA;Acc:NM_001244135]
ENSBTAG00000019463	0.6466	0.0010	SLC25A39	solute carrier family 25 member 39 [Source:VGNC Symbol;Acc:VGNC:34764]

ENSBTAG00000020707 novel.492	-1.3966 3.3195	0.0014 0.0014	ADGRG6 -	adhesion G protein-coupled receptor G6 [Source:VGNC Symbol;Acc:VGNC:25669] -
ENSBTAG00000019669	1.0059	0.0016	CD163	Bos taurus CD163 molecule (CD163), mRNA. [Source:RefSeq mRNA;Acc:NM_001163413]
ENSBTAG00000013406	-0.6855	0.0018	CSRP2	cysteine and glycine rich protein 2 [Source:VGNC Symbol;Acc:VGNC:27774]
ENSBTAG00000025181	0.9821	0.0021	CCDC85C	coiled-coil domain containing 85C [Source:VGNC Symbol;Acc:VGNC:26925]
ENSBTAG00000017508	-1.5294	0.0021	CYSLTR2	Bos taurus cysteinyl leukotriene receptor 2 (CYSLTR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102240]
ENSBTAG00000013152	0.7396	0.0023	NIPSNAP1	nipsnap homolog 1 [Source:VGNC Symbol;Acc:VGNC:32086]
ENSBTAG00000046753	1.1665	0.0023	-	insulin receptor substrate 1-like [Source:NCBI gene;Acc:107131843]
ENSBTAG00000004777	1.0705	0.0030	S100B	Bos taurus S100 calcium binding protein B (S100B), mRNA. [Source:RefSeq mRNA;Acc:NM_001034555]
ENSBTAG00000001748	-1.0645	0.0031	TRIM45	Bos taurus tripartite motif containing 45 (TRIM45), mRNA. [Source:RefSeq mRNA;Acc:NM_001014952]
ENSBTAG00000013303 novel.997	1.2543 1.3073	0.0039 0.0040	ACSS2 -	Bos taurus acyl-CoA synthetase short chain family member 2 (ACSS2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105339] -
ENSBTAG00000012970	1.0500	0.0043	FAM53B	family with sequence similarity 53 member B [Source:VGNC Symbol;Acc:VGNC:55949]
ENSBTAG00000009297	0.7471	0.0059	PANX2	pannexin 2 [Source:VGNC Symbol;Acc:VGNC:32568]
ENSBTAG00000010578	1.4714	0.0059	IL17B	Bos taurus interleukin 17B (IL17B), mRNA. [Source:RefSeq mRNA;Acc:NM_001192045]
ENSBTAG00000008181	0.7754	0.0059	CHAF1A	chromatin assembly factor 1 subunit A [Source:VGNC Symbol;Acc:VGNC:27266]
ENSBTAG00000018082	1.2990	0.0061	-	-

ENSBTAG00000035998	1.0622	0.0065	CKB	creatine kinase B [Source:VGNC Symbol;Acc:VGNC:27384]
ENSBTAG00000037673	1.1635	0.0065	GSTM1	glutathione S-transferase mu 1 [Source:NCBI gene;Acc:783879]
ENSBTAG00000018438	-1.3706	0.0066	RRAGD	Bos taurus Ras related GTP binding D (RRAGD), mRNA. [Source:RefSeq mRNA;Acc:NM_001192828]
novel.747	1.8261	0.0066	-	-
ENSBTAG00000021263	-1.1623	0.0073	CYP4V2	Bos taurus cytochrome P450, family 4, subfamily V, polypeptide 2 (CYP4V2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034373]
ENSBTAG00000026913	1.1141	0.0104	HHIPL1	HHIP like 1 [Source:VGNC Symbol;Acc:VGNC:29841]
ENSBTAG00000016411	-1.2973	0.0118	RNF122	ring finger protein 122 [Source:VGNC Symbol;Acc:VGNC:34015]
ENSBTAG00000009075	0.6721	0.0118	RNF207	Bos taurus ring finger protein 207 (RNF207), mRNA. [Source:RefSeq mRNA;Acc:NM_001078057]
ENSBTAG00000036367	-1.1439	0.0124	-	-
ENSBTAG00000017567	1.1411	0.0167	ACACA	Bos taurus acetyl-CoA carboxylase alpha (ACACA), mRNA. [Source:RefSeq mRNA;Acc:NM_174224]
ENSBTAG00000009086	0.7321	0.0167	LOXL1	lysyl oxidase like 1 [Source:VGNC Symbol;Acc:VGNC:30952]
ENSBTAG00000006601	-0.6269	0.0178	KSR1	kinase suppressor of ras 1 [Source:VGNC Symbol;Acc:VGNC:30754]
ENSBTAG00000011699	0.7817	0.0180	CDC37	Bos taurus cell division cycle 37 (CDC37), mRNA. [Source:RefSeq mRNA;Acc:NM_001035338]
novel.1426	3.9003	0.0180	-	-
ENSBTAG00000020755	-0.6795	0.0180	SELP	Bos taurus selectin P (SELP), mRNA. [Source:RefSeq mRNA;Acc:NM_174183]
ENSBTAG00000020037	0.7168	0.0180	CYB5RL	cytochrome b5 reductase-like [Source:NCBI gene;Acc:526748]
ENSBTAG00000040584	0.8566	0.0180	DSC2	Bos taurus desmocollin 2 (DSC2), mRNA. [Source:RefSeq mRNA;Acc:NM_001166526]
ENSBTAG00000011912	-0.7571	0.0180	SLC25A25	Bos taurus solute carrier family 25 member 25 (SLC25A25), mRNA. [Source:RefSeq mRNA;Acc:NM_001038145]
ENSBTAG00000038326	-2.8403	0.0196	-	Bos taurus uncharacterized LOC508098 (LOC508098), mRNA. [Source:RefSeq mRNA;Acc:NM_001130749]

novel.1142	2.6276	0.0196	-	PF00530:Scavenger receptor cysteine-rich domain
ENSBTAG00000009570	2.9465	0.0196	ANGPTL8	angiopoietin like 8 [Source:VGNC Symbol;Acc:VGNC:25896]
ENSBTAG00000005681	1.2117	0.0196	ME1	Bos taurus malic enzyme 1 (ME1), mRNA. [Source:RefSeq mRNA;Acc:NM_001144853]
novel.466	2.6680	0.0201	-	-
ENSBTAG00000012977	0.9789	0.0201	COMTD1	Bos taurus catechol-O-methyltransferase domain containing 1 (COMTD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105368]
ENSBTAG00000001113	0.7875	0.0201	NDUFAF7	Bos taurus NADH:ubiquinone oxidoreductase complex assembly factor 7 (NDUFAF7), mRNA. [Source:RefSeq mRNA;Acc:NM_001101049]
ENSBTAG00000021862	-1.3720	0.0221	SLC27A3	solute carrier family 27 member 3 [Source:VGNC Symbol;Acc:VGNC:34787]
ENSBTAG00000011667	-1.0722	0.0230	PM20D2	Bos taurus peptidase M20 domain containing 2 (PM20D2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192533]
ENSBTAG00000004075	0.9200	0.0233	IDI1	Bos taurus isopentenyl-diphosphate delta isomerase 1 (IDI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075659]
ENSBTAG00000012003	0.6187	0.0233	PPIA	Bos taurus peptidylprolyl isomerase A (PPIA), mRNA. [Source:RefSeq mRNA;Acc:NM_178320]
ENSBTAG00000007759	0.9378	0.0233	ABCB8	ATP binding cassette subfamily B member 8 [Source:VGNC Symbol;Acc:VGNC:25466]
novel.103	1.2121	0.0233	-	PF18697:Murine leukemia virus (MLV) integrase (IN) C-terminal domain PF00665:Integrase core domain
ENSBTAG00000010336	0.6978	0.0233	TALDO1	Bos taurus transaldolase 1 (TALDO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035283]
ENSBTAG00000053486	3.0511	0.0233	-	-
ENSBTAG00000001368	0.7394	0.0233	LGALS3BP	galectin 3 binding protein [Source:VGNC Symbol;Acc:VGNC:30853]
ENSBTAG00000051176	-0.9933	0.0233	-	-
novel.1368	0.8923	0.0241	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)

ENSBTAG00000009231	0.7677	0.0243	NSDHL	Bos taurus NAD(P) dependent steroid dehydrogenase-like (NSDHL), mRNA. [Source:RefSeq mRNA;Acc:NM_001035482]
ENSBTAG00000035544	1.2093	0.0243	CYP46A1	Bos taurus cytochrome P450, family 46, subfamily A, polypeptide 1 (CYP46A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076810]
ENSBTAG00000013527	0.9436	0.0243	PGD	phosphogluconate dehydrogenase [Source:VGNC Symbol;Acc:VGNC:32786]
ENSBTAG00000013084	0.6642	0.0243	NAPA	NSF attachment protein alpha [Source:VGNC Symbol;Acc:VGNC:31881]
ENSBTAG00000053558	2.1724	0.0243	NOTUM	notum, palmitoleoyl-protein carboxylesterase [Source:NCBI gene;Acc:525682]
ENSBTAG00000011101	-1.1300	0.0243	EML6	Bos taurus echinoderm microtubule associated protein like 6 (EML6), mRNA. [Source:RefSeq mRNA;Acc:NM_001192457]
ENSBTAG00000017512	-1.1950	0.0246	MAPT	microtubule associated protein tau [Source:VGNC Symbol;Acc:VGNC:57143]
ENSBTAG00000051588	1.4274	0.0249	-	-
ENSBTAG00000046047	1.9185	0.0253	ZNF75D	Bos taurus zinc finger protein 75D (ZNF75D), mRNA. [Source:RefSeq mRNA;Acc:NM_001078043]
ENSBTAG00000005063	1.2807	0.0253	THEM6	Bos taurus thioesterase superfamily member 6 (THEM6), mRNA. [Source:RefSeq mRNA;Acc:NM_001099375]
ENSBTAG00000053003	0.8885	0.0257	GPX4	Bos taurus glutathione peroxidase 4 (GPX4), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_174770]
ENSBTAG00000018937	0.6612	0.0264	HMOX2	Bos taurus heme oxygenase 2 (HMOX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035087]
ENSBTAG00000004126	-1.4167	0.0280	MLF1	myeloid leukemia factor 1 [Source:NCBI gene;Acc:533379]
ENSBTAG00000006631	1.2940	0.0280	GLI1	Bos taurus GLI family zinc finger 1 (GLI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099000]

ENSBTAG00000012319	-4.9823	0.0288	KCNE5	Bos taurus potassium voltage-gated channel subfamily E regulatory subunit 5 (KCNE5), mRNA. [Source:RefSeq mRNA;Acc:NM_001077875]
ENSBTAG00000003639	0.4469	0.0293	ELMO2	engulfment and cell motility 2 [Source:VGNC Symbol;Acc:VGNC:28439]
ENSBTAG00000018936	1.0053	0.0293	LSS	Bos taurus lanosterol synthase (LSS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046564]
ENSBTAG00000011466	0.6055	0.0293	NAXD	NAD(P)HX dehydratase [Source:VGNC Symbol;Acc:VGNC:53829]
ENSBTAG00000014771	-0.5463	0.0293	RBMX2	RNA binding motif protein X-linked 2 [Source:NCBI gene;Acc:613705]
ENSBTAG00000012953	-1.9081	0.0295	ASTN1	astrotactin 1 [Source:VGNC Symbol;Acc:VGNC:26227]
ENSBTAG00000023179	-1.3162	0.0295	TRIB1	Bos taurus tribbles pseudokinase 1 (TRIB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001101105]
ENSBTAG00000044185	-1.6982	0.0312	SOX6	Bos taurus SRY-box 6 (SOX6), mRNA. [Source:RefSeq mRNA;Acc:NM_001191418]
ENSBTAG00000011666	1.1816	0.0314	THRSP	Bos taurus thyroid hormone responsive (THRSP), mRNA. [Source:RefSeq mRNA;Acc:NM_001040533]
ENSBTAG00000018020	-0.9274	0.0320	GNAT1	Bos taurus G protein subunit alpha transducin 1 (GNAT1), mRNA. [Source:RefSeq mRNA;Acc:NM_181022]
ENSBTAG00000054952	0.6288	0.0321	-	-
novel.740	0.8072	0.0327	-	-
ENSBTAG00000016355	0.9318	0.0332	UVRAG	Bos taurus UV radiation resistance associated (UVRAG), mRNA. [Source:RefSeq mRNA;Acc:NM_001193026]
ENSBTAG00000047676	0.9423	0.0335	PRODH	Bos taurus proline dehydrogenase (oxidase) 1 (PRODH), mRNA. [Source:RefSeq mRNA;Acc:NM_001075185]
ENSBTAG00000012697	0.6596	0.0340	PGAM1	Bos taurus phosphoglycerate mutase 1 (PGAM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034054]
ENSBTAG00000014005	0.8120	0.0340	PPIP5K1	Bos taurus diphosphoinositol pentakisphosphate kinase 1 (PPIP5K1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105354]

ENSBTAG00000015419	0.7296	0.0340	ARHGEF37	Bos taurus Rho guanine nucleotide exchange factor (GEF) 37 (ARHGEF37), mRNA. [Source:RefSeq mRNA;Acc:NM_001205932]
ENSBTAG00000012676	1.7703	0.0343	KRT79	keratin 79 [Source:VGNC Symbol;Acc:VGNC:30741]
ENSBTAG00000012372	0.5824	0.0343	TMEM53	transmembrane protein 53 [Source:VGNC Symbol;Acc:VGNC:36096]
ENSBTAG00000053974	-3.7700	0.0376	-	-
ENSBTAG00000008528	1.0825	0.0397	SLC25A1	Bos taurus solute carrier family 25 member 1 (SLC25A1), mRNA. [Source:RefSeq mRNA;Acc:NM_174656]
ENSBTAG00000000212	0.5420	0.0425	NADK	NAD kinase [Source:VGNC Symbol;Acc:VGNC:31863]
ENSBTAG00000013347	1.0870	0.0425	DMPK	DM1 protein kinase [Source:VGNC Symbol;Acc:VGNC:28109]
ENSBTAG00000015241	0.5905	0.0427	EPHX2	Bos taurus epoxide hydrolase 2 (EPHX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075534]
ENSBTAG00000008429	-0.5792	0.0432	LRP4	Bos taurus LDL receptor related protein 4 (LRP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001077843]
ENSBTAG00000053674	1.2396	0.0432	-	-
ENSBTAG00000001879	-0.8833	0.0434	PER2	period circadian regulator 2 [Source:NCBI gene;Acc:512237]
ENSBTAG00000019343	0.5998	0.0446	MDFI	MyoD family inhibitor [Source:VGNC Symbol;Acc:VGNC:31329]
ENSBTAG00000051206	-2.9618	0.0446	KY	kyphoscoliosis peptidase [Source:HGNC Symbol;Acc:HGNC:26576]
ENSBTAG00000016740	1.1136	0.0446	ACLY	Bos taurus ATP citrate lyase (ACLY), mRNA. [Source:RefSeq mRNA;Acc:NM_001037457]
ENSBTAG00000025450	-0.4649	0.0455	SYNE2	Bos taurus spectrin repeat containing nuclear envelope protein 2 (SYNE2), mRNA. [Source:RefSeq mRNA;Acc:NM_001206586]
ENSBTAG00000053970	2.4380	0.0455	SOST	Bos taurus sclerostin (SOST), mRNA. [Source:RefSeq mRNA;Acc:NM_001166514]
ENSBTAG00000020801	0.8490	0.0455	FAM49B	family with sequence similarity 49 member B [Source:VGNC Symbol;Acc:VGNC:28819]
ENSBTAG00000002412	0.4840	0.0455	CYB5B	cytochrome b5 type B [Source:VGNC Symbol;Acc:VGNC:49139]
ENSBTAG00000000014	0.6165	0.0463	TXN2	thioredoxin 2 [Source:VGNC Symbol;Acc:VGNC:36533]

ENSBTAG00000020547	0.6433	0.0475	BCAP31	Bos taurus B cell receptor associated protein 31 (BCAP31), mRNA. [Source:RefSeq mRNA;Acc:NM_001014941]
ENSBTAG00000027879	0.7628	0.0482	MPC1	mitochondrial pyruvate carrier 1 [Source:VGNC Symbol;Acc:VGNC:31569]
novel.173	2.0080	0.0485	-	-
ENSBTAG00000007449	-1.0040	0.0485	HS3ST1	Bos taurus heparan sulfate-glucosamine 3-sulfotransferase 1 (HS3ST1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076122]
ENSBTAG00000003711	0.6367	0.0485	EPAS1	endothelial PAS domain protein 1 [Source:VGNC Symbol;Acc:VGNC:28518]
ENSBTAG00000020573	-0.9411	0.0487	SCUBE2	signal peptide, CUB domain and EGF like domain containing 2 [Source:VGNC Symbol;Acc:VGNC:34372]
ENSBTAG00000006579	1.2775	0.0487	P4HA3	Bos taurus prolyl 4-hydroxylase subunit alpha 3 (P4HA3), mRNA. [Source:RefSeq mRNA;Acc:NM_001001598]
ENSBTAG00000049987	1.5105	0.0487	-	-
ENSBTAG00000003975	0.5533	0.0496	LMAN2L	Bos taurus lectin, mannose binding 2 like (LMAN2L), mRNA. [Source:RefSeq mRNA;Acc:NM_001014953]
ENSBTAG00000018300	-0.9041	0.0520	TNFRSF19	TNF receptor superfamily member 19 [Source:VGNC Symbol;Acc:VGNC:53840]
ENSBTAG00000003300	0.4896	0.0533	MFGE8	milk fat globule-EGF factor 8 protein [Source:VGNC Symbol;Acc:VGNC:31426]
ENSBTAG00000009788	1.0044	0.0540	-	acyl-CoA thioesterase 2 [Source:NCBI gene;Acc:785383]
ENSBTAG00000046585	-1.8234	0.0560	RTL1	Bos taurus retrotransposon Gag like 1 (RTL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001195020]
ENSBTAG00000001868	1.1332	0.0560	PCYT2	Bos taurus phosphate cytidylyltransferase 2, ethanolamine (PCYT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035089]
ENSBTAG00000020109	0.6664	0.0560	TRAP1	Bos taurus TNF receptor associated protein 1 (TRAP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001038675]
ENSBTAG00000050967	0.7294	0.0560	-	-

ENSBTAG00000049766	0.5969	0.0560	DUSP28	dual specificity phosphatase 28 [Source:NCBI gene;Acc:112446050]
ENSBTAG00000052272	0.6218	0.0565	COX8A	Cytochrome c oxidase subunit 8A, mitochondrial [Source:UniProtKB/Swiss-Prot;Acc:P14622]
ENSBTAG00000052111	2.1773	0.0565	-	-
ENSBTAG00000016005	-0.5272	0.0567	PPP3CA	protein phosphatase 3 catalytic subunit alpha [Source:VGNC Symbol;Acc:VGNC:33265]
ENSBTAG00000016956	0.3625	0.0572	GANAB	Bos taurus glucosidase II alpha subunit (GANAB), mRNA. [Source:RefSeq mRNA;Acc:NM_001205777]
ENSBTAG00000052708	-0.8564	0.0572	RC3H1	ring finger and CCCH-type domains 1 [Source:NCBI gene;Acc:100336754]
ENSBTAG00000020632	1.1506	0.0572	NQO1	Bos taurus NAD(P)H quinone dehydrogenase 1 (NQO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034535]
ENSBTAG00000052508	1.4141	0.0606	SEM1	Bos taurus SEM1, 26S proteasome complex subunit (SEM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001113317]
novel.232	-1.8260	0.0612	-	PF00005:ABC transporter PF00664:ABC transporter transmembrane region
ENSBTAG00000049838	1.2273	0.0612	-	-
ENSBTAG00000013076	0.4786	0.0612	SNX19	Bos taurus sorting nexin 19 (SNX19), mRNA. [Source:RefSeq mRNA;Acc:NM_001302940]
ENSBTAG00000014903	0.7401	0.0613	ABCA3	ATP binding cassette subfamily A member 3 [Source:VGNC Symbol;Acc:VGNC:50168]
ENSBTAG00000010339	0.7906	0.0613	ABHD11	abhydrolase domain containing 11 [Source:VGNC Symbol;Acc:VGNC:25489]
ENSBTAG00000051567	1.1197	0.0626	-	-
ENSBTAG00000001164	0.4287	0.0630	ACAD10	Bos taurus acyl-CoA dehydrogenase family, member 10 (ACAD10), mRNA. [Source:RefSeq mRNA;Acc:NM_001192292]
ENSBTAG00000003495	-0.8076	0.0655	KDM7A	lysine demethylase 7A [Source:VGNC Symbol;Acc:VGNC:30533]

ENSBTAG00000017765	0.6385	0.0657	GSTM1	Bos taurus glutathione S-transferase M1 (GSTM1), mRNA. [Source:RefSeq mRNA;Acc:NM_175825]
ENSBTAG00000003568	3.4973	0.0671	CLDN10	Bos taurus claudin 10 (CLDN10), transcript variant 2, mRNA. [Source:RefSeq mRNA;Acc:NM_001105609]
ENSBTAG00000007268	0.6403	0.0671	F13A1	Bos taurus coagulation factor XIII A chain (F13A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001167894]
ENSBTAG00000007665	-1.3875	0.0677	NPR3	natriuretic peptide receptor 3 [Source:HGNC Symbol;Acc:HGNC:7945]
ENSBTAG00000020699	0.7898	0.0677	TSPAN11	tetraspanin 11 [Source:VGNC Symbol;Acc:VGNC:36426]
ENSBTAG00000007807	1.0236	0.0677	HSPA2	heat shock protein family A (Hsp70) member 2 [Source:HGNC Symbol;Acc:HGNC:5235]
ENSBTAG00000003604	0.3788	0.0677	ADAMTSL4	Bos taurus ADAMTS like 4 (ADAMTSL4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101061]
ENSBTAG000000054228	0.8579	0.0677	-	-
ENSBTAG000000054516	4.9348	0.0688	CYP17A1	steroid 17-alpha-hydroxylase/17,20 lyase [Source:NCBI gene;Acc:112441470]
ENSBTAG000000013339	-1.5409	0.0700	NEBL	nebullette [Source:VGNC Symbol;Acc:VGNC:57012]
ENSBTAG000000001785	1.6720	0.0700	TGM3	Bos taurus transglutaminase 3 (TGM3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101848]
novel.943	1.8856	0.0720	-	-
ENSBTAG000000012228	-1.1413	0.0750	SEMA4A	semaphorin 4A [Source:VGNC Symbol;Acc:VGNC:34433]
ENSBTAG000000021487	-1.3103	0.0750	CIART	circadian associated repressor of transcription [Source:VGNC Symbol;Acc:VGNC:27358]
ENSBTAG000000009030	-2.4745	0.0765	NOX5	NADPH oxidase 5 [Source:VGNC Symbol;Acc:VGNC:32185]
ENSBTAG000000015908	0.5469	0.0766	MBOAT7	Bos taurus membrane bound O-acyltransferase domain containing 7 (MBOAT7), mRNA. [Source:RefSeq mRNA;Acc:NM_001075152]
ENSBTAG000000002178	0.6314	0.0766	PPL	periplakin [Source:VGNC Symbol;Acc:VGNC:33208]
ENSBTAG000000016573	0.8237	0.0776	-	luteinizing hormone/choriogonadotropin receptor [Source:NCBI gene;Acc:281900]

ENSBTAG00000015478	0.8723	0.0778	SRD5A1	Bos taurus steroid 5 alpha-reductase 1 (SRD5A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099137]
ENSBTAG00000003220	-0.6491	0.0778	-	-
ENSBTAG00000011893	0.4593	0.0782	HDHD2	Bos taurus haloacid dehalogenase like hydrolase domain containing 2 (HDHD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035022]
ENSBTAG00000007863	-0.7496	0.0783	GLS	Bos taurus glutaminase (GLS), mRNA. [Source:RefSeq mRNA;Acc:NM_001077964]
ENSBTAG00000012259	0.7520	0.0786	PNPO	Bos taurus pyridoxamine 5'-phosphate oxidase (PNPO), mRNA. [Source:RefSeq mRNA;Acc:NM_001014907]
ENSBTAG00000052539	-2.1825	0.0786	-	-
ENSBTAG00000005210	0.7008	0.0790	SNAPC5	Bos taurus small nuclear RNA activating complex polypeptide 5 (SNAPC5), mRNA. [Source:RefSeq mRNA;Acc:NM_001046573]
ENSBTAG00000015980	0.9962	0.0790	FASN	fatty acid synthase [Source:VGNC Symbol;Acc:VGNC:28871]
ENSBTAG00000013898	2.1854	0.0806	NPB	neuropeptide B [Source:VGNC Symbol;Acc:VGNC:32192]
ENSBTAG00000040590	-1.6671	0.0822	-	-
ENSBTAG00000040496	-1.0425	0.0826	KCNB2	potassium voltage-gated channel subfamily B member 2 [Source:VGNC Symbol;Acc:VGNC:30431]
ENSBTAG00000004510	0.9341	0.0827	SARDH	sarcosine dehydrogenase [Source:VGNC Symbol;Acc:VGNC:34289]
ENSBTAG00000018807	-1.0002	0.0833	MYBPHL	myosin binding protein H like [Source:VGNC Symbol;Acc:VGNC:31783]
ENSBTAG00000007239	-1.1103	0.0853	TNFAIP6	TNF alpha induced protein 6 [Source:VGNC Symbol;Acc:VGNC:36156]
ENSBTAG00000017067	0.7182	0.0853	BUD23	BUD23, rRNA methyltransferase and ribosome maturation factor [Source:VGNC Symbol;Acc:VGNC:26608]
ENSBTAG00000019297	-0.9292	0.0853	GFRA1	Bos taurus GDNF family receptor alpha 1 (GFRA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105411]
ENSBTAG00000007962	0.7090	0.0860	ATP9A	ATPase phospholipid transporting 9A (putative) [Source:NCBI gene;Acc:516579]

ENSBTAG0000005843	0.7784	0.0866	REXO2	Bos taurus RNA exonuclease 2 (REXO2), mRNA. [Source:RefSeq mRNA;Acc:NM_001081735]
ENSBTAG00000020436	-0.6589	0.0866	KIF27	Bos taurus kinesin family member 27 (KIF27), mRNA. [Source:RefSeq mRNA;Acc:NM_001206123]
ENSBTAG00000053752	-1.1361	0.0866	-	-
ENSBTAG00000054051	-3.8729	0.0873	-	-
ENSBTAG00000018413	0.9946	0.0873	TENT5B	Bos taurus terminal nucleotidyltransferase 5B (TENT5B), mRNA. [Source:RefSeq mRNA;Acc:NM_001045950]
ENSBTAG00000011950	0.4238	0.0873	EMC1	ER membrane protein complex subunit 1 [Source:VGNC Symbol;Acc:VGNC:28461]
ENSBTAG00000020050	0.9219	0.0873	MLEC	malectin [Source:VGNC Symbol;Acc:VGNC:31496]
ENSBTAG00000017661	-1.0080	0.0873	RFX2	Bos taurus regulatory factor X2 (RFX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102172]
ENSBTAG00000003642	0.7616	0.0873	PRDX1	peroxiredoxin 1 [Source:VGNC Symbol;Acc:VGNC:33299]
ENSBTAG00000044010	1.2165	0.0873	EMB	embigin [Source:HGNC Symbol;Acc:HGNC:30465]
ENSBTAG00000014529	-1.3001	0.0873	GBP4	Bos taurus guanylate binding protein 4 (GBP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001102261]
ENSBTAG00000014249	-0.8330	0.0873	IVNS1ABP	Bos taurus influenza virus NS1A binding protein (IVNS1ABP), mRNA. [Source:RefSeq mRNA;Acc:NM_001046184]
ENSBTAG00000030255	0.7384	0.0879	PDXP	pyridoxal phosphatase [Source:VGNC Symbol;Acc:VGNC:32722]
ENSBTAG00000019204	0.4623	0.0882	RTN3	Bos taurus reticulon 3 (RTN3), mRNA. [Source:RefSeq mRNA;Acc:NM_182657]
ENSBTAG00000008004	0.9608	0.0889	NCF2	neutrophil cytosolic factor 2 [Source:VGNC Symbol;Acc:VGNC:31912]
ENSBTAG00000011987	0.7409	0.0893	ERG28	Bos taurus ergosterol biosynthesis 28 homolog (ERG28), mRNA. [Source:RefSeq mRNA;Acc:NM_001035423]
ENSBTAG00000005915	-0.4751	0.0911	SFMBT2	Scm like with four mbt domains 2 [Source:VGNC Symbol;Acc:VGNC:34516]

ENSBTAG0000000053	-0.6638	0.0916	FILIP1	Bos taurus filamin A interacting protein 1 (FILIP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192362]
ENSBTAG00000044126	-0.8793	0.0920	SNTB1	syntrophin beta 1 [Source:HGNC Symbol;Acc:HGNC:11168]
novel.1021	-0.7305	0.0920	-	PF02263:Guanylate-binding protein, N-terminal domain PF02841:Guanylate-binding protein, C-terminal domain
ENSBTAG00000021957	0.5291	0.0920	LTBP2	Bos taurus latent transforming growth factor beta binding protein 2 (LTBP2), mRNA. [Source:RefSeq mRNA;Acc:NM_174385]
ENSBTAG00000052510	-1.3343	0.0920	CCL26	C-C motif chemokine ligand 26 [Source:NCBI gene;Acc:508387]
ENSBTAG00000052950	2.4450	0.0920	-	synapse differentiation inducing 1 like [Source:NCBI gene;Acc:617660]
ENSBTAG00000035844	-1.8070	0.0920	HRASLS	Bos taurus HRAS like suppressor (HRASLS), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001314065]
ENSBTAG00000013107	1.5225	0.0920	SHANK1	SH3 and multiple ankyrin repeat domains 1 [Source:VGNC Symbol;Acc:VGNC:34585]
ENSBTAG00000000898	0.8997	0.0920	F2RL2	Bos taurus coagulation factor II thrombin receptor like 2 (F2RL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001038533]
ENSBTAG00000020527	0.6477	0.0923	IDH1	isocitrate dehydrogenase (NADP(+)) 1, cytosolic [Source:NCBI gene;Acc:281235]
ENSBTAG00000030990	0.6381	0.0936	UQCC1	Bos taurus ubiquinol-cytochrome c reductase complex assembly factor 1 (UQCC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076508]
ENSBTAG00000031696	-0.7223	0.0941	ANKRD44	ankyrin repeat domain 44 [Source:VGNC Symbol;Acc:VGNC:55324]
novel.1122	1.0599	0.0944	-	-
ENSBTAG00000052670	0.6148	0.0944	CD99L2	Bos taurus CD99 molecule like 2 (CD99L2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083758]
ENSBTAG00000031632	0.9558	0.0944	ADRA1A	adrenoceptor alpha 1A [Source:VGNC Symbol;Acc:VGNC:25693]
ENSBTAG00000005412	-0.5159	0.0944	NEDD4L	neural precursor cell expressed, developmentally down-regulated 4-like, E3 ubiquitin protein ligase [Source:VGNC Symbol;Acc:VGNC:31983]
ENSBTAG00000000494	-1.0200	0.0944	PDE4D	phosphodiesterase 4D [Source:VGNC Symbol;Acc:VGNC:32677]

ENSBTAG0000006278	3.2992	0.0950	FAM83C	family with sequence similarity 83 member C [Source:VGNC Symbol;Acc:VGNC:28834]
ENSBTAG00000049383	1.0878	0.0968	LSAMP	Bos taurus limbic system associated membrane protein (LSAMP), mRNA. [Source:RefSeq mRNA;Acc:NM_001205368]
ENSBTAG00000020318	0.7256	0.0983	DBNDD1	Bos taurus dysbindin domain containing 1 (DBNDD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099005]
ENSBTAG00000012249	0.8355	0.0983	PRR15L	Bos taurus proline rich 15 like (PRR15L), mRNA. [Source:RefSeq mRNA;Acc:NM_001034794]
novel.1415	-1.0095	0.0999	-	-

Table 5. All DEGs Bovine Choice to Select adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSBTAG00000018223	0.7902	0.0316	CHI3L1	Bos taurus chitinase 3 like 1 (CHI3L1), mRNA. [Source:RefSeq mRNA;Acc:NM_001080219]
ENSBTAG00000012109	4.5583	0.0316	EDN3	Bos taurus endothelin 3 (EDN3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101979]
ENSBTAG00000009835	1.5779	0.0316	CACNA1G	Bos taurus calcium voltage-gated channel subunit alpha1 G (CACNA1G), mRNA. [Source:RefSeq mRNA;Acc:NM_001193140]
ENSBTAG00000011839	1.1641	0.0386	HMGCS1	Bos taurus 3-hydroxy-3-methylglutaryl-CoA synthase 1 (HMGCS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206578]
ENSBTAG00000020620	0.9540	0.0386	RGS2	Regulator of G-protein signaling 2 [Source:UniProtKB/Swiss-Prot;Acc:Q0P5H5]
novel.838	2.9100	0.0386	-	-
ENSBTAG00000006779	-0.9403	0.0386	LDHD	Bos taurus lactate dehydrogenase D (LDHD), mRNA. [Source:RefSeq mRNA;Acc:NM_001075443]
ENSBTAG00000039105	2.3041	0.0386	S100A3	Bos taurus S100 calcium binding protein A3 (S100A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001083530]
ENSBTAG00000009599	5.5783	0.0386	-	lipocalin 1 [Source:NCBI gene;Acc:511158]
ENSBTAG00000007235	-0.6920	0.0386	NTNG2	netrin G2 [Source:VGNC Symbol;Acc:VGNC:32308]
ENSBTAG00000000336	1.9805	0.0386	-	-
ENSBTAG00000009331	-0.6531	0.0386	CPAMD8	C3 and PZP like, alpha-2-macroglobulin domain containing 8 [Source:VGNC Symbol;Acc:VGNC:27644]
ENSBTAG00000011344	-0.7358	0.0386	-	-
ENSBTAG00000026501	-0.7019	0.0573	MGC127055	Bos taurus uncharacterized LOC785824 (MGC127055), mRNA. [Source:RefSeq mRNA;Acc:NM_001080364]

ENSBTAG00000021626	-1.5055	0.0629	MLC1	Bos taurus megalencephalic leukoencephalopathy with subcortical cysts 1 (MLC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076952]
ENSBTAG00000012262	-0.7266	0.0629	FBXO10	Bos taurus F-box protein 10 (FBXO10), mRNA. [Source:RefSeq mRNA;Acc:NM_001144076]
ENSBTAG00000005498	0.6626	0.0629	SQLE	squalene epoxidase [Source:VGNC Symbol;Acc:VGNC:35264]
ENSBTAG00000039462	2.0139	0.0635	PCLAF	Bos taurus PCNA clamp associated factor (PCLAF), mRNA. [Source:RefSeq mRNA;Acc:NM_001015678]
ENSBTAG00000012228	1.6393	0.0646	SEMA4A	semaphorin 4A [Source:VGNC Symbol;Acc:VGNC:34433]
ENSBTAG00000026275	-0.6517	0.0646	CCL24	Bos taurus C-C motif chemokine ligand 24 (CCL24), mRNA. [Source:RefSeq mRNA;Acc:NM_001046596]
ENSBTAG00000009396	3.7531	0.0666	EXO1	Bos taurus exonuclease 1 (EXO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001304987]
ENSBTAG00000034985	1.5416	0.0666	PHLDA1	Bos taurus pleckstrin homology like domain family A member 1 (PHLDA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105631]
ENSBTAG00000015562	-0.6819	0.0683	PLBD1	Bos taurus phospholipase B domain containing 1 (PLBD1), transcript variant b, mRNA. [Source:RefSeq mRNA;Acc:NM_001101044]
ENSBTAG00000002356	0.8653	0.0683	RBM47	Bos taurus RNA binding motif protein 47 (RBM47), mRNA. [Source:RefSeq mRNA;Acc:NM_001206034]
ENSBTAG00000014089	0.6916	0.0983	PPCDC	phosphopantothoenoylcysteine decarboxylase [Source:VGNC Symbol;Acc:VGNC:33188]
ENSBTAG00000006189	0.5167	0.0983	ACTG1	Bos taurus actin gamma 1 (ACTG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001033618]
ENSBTAG00000026779	1.4732	0.0983	LYZ	Bos taurus lysozyme (LYZ), mRNA. [Source:RefSeq mRNA;Acc:NM_001078159]
ENSBTAG00000003871	-1.2408	0.0983	CYP2B6	Bos taurus cytochrome P450 subfamily 2B (CYP2B6), mRNA. [Source:RefSeq mRNA;Acc:NM_001075173]

Table 6. All DEGs Bovine Choice to Standard adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSBTAG00000010913	2.630714452	8.22E-11	SRXN1	sulfiredoxin 1 [Source:VGNC Symbol;Acc:VGNC:35304]
novel.173	3.248215458	1.21E-10	-	-
ENSBTAG00000020632	2.356836093	1.22E-10	NQO1	Bos taurus NAD(P)H quinone dehydrogenase 1 (NQO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034535]
ENSBTAG00000019181	2.221789814	1.56E-10	BAIAP2L1	BAI1 associated protein 2 like 1 [Source:VGNC Symbol;Acc:VGNC:26413]
ENSBTAG00000018082	1.958693276	7.43E-10	-	-
ENSBTAG00000011154	1.815245764	1.28E-09	SDC1	syndecan 1 [Source:VGNC Symbol;Acc:VGNC:34378]
ENSBTAG00000047676	1.778504352	1.70E-09	PRODH	Bos taurus proline dehydrogenase (oxidase) 1 (PRODH), mRNA. [Source:RefSeq mRNA;Acc:NM_001075185]
ENSBTAG00000019512	2.249999633	2.92E-09	G6PD	Bos taurus glucose-6-phosphate dehydrogenase (G6PD), mRNA. [Source:RefSeq mRNA;Acc:NM_001244135]
ENSBTAG00000018936	2.086533818	2.85E-08	LSS	Bos taurus lanosterol synthase (LSS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046564]
ENSBTAG00000053486	4.536701564	2.89E-08	-	-
ENSBTAG00000003359	1.927137073	6.32E-08	ELOVL5	Bos taurus ELOVL fatty acid elongase 5 (ELOVL5), mRNA. [Source:RefSeq mRNA;Acc:NM_001046597]
ENSBTAG00000052111	3.570506448	6.32E-08	-	-
ENSBTAG00000025161	1.642417312	6.32E-08	AGPAT2	Bos taurus 1-acylglycerol-3-phosphate O-acyltransferase 2 (AGPAT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001080264]
ENSBTAG00000013107	2.192130682	7.49E-08	SHANK1	SH3 and multiple ankyrin repeat domains 1 [Source:VGNC Symbol;Acc:VGNC:34585]
novel.1142	3.403670657	1.14E-07	-	PF00530:Scavenger receptor cysteine-rich domain
ENSBTAG00000009615	0.962819981	1.23E-07	ANXA2	Bos taurus annexin A2 (ANXA2), mRNA. [Source:RefSeq mRNA;Acc:NM_174716]

ENSBTAG00000015769	1.713535613	1.30E-07	VSIG4	Bos taurus V-set and immunoglobulin domain containing 4 (VSIG4), mRNA. [Source:RefSeq mRNA;Acc:NM_001046529]
ENSBTAG00000014903	1.229335006	1.32E-07	ABCA3	ATP binding cassette subfamily A member 3 [Source:VGNC Symbol;Acc:VGNC:50168] Bos taurus phosphate cytidyltransferase 2, ethanolamine (PCYT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035089]
ENSBTAG00000001868	1.85816634	1.34E-07	PCYT2	
ENSBTAG00000004777	1.549832313	1.35E-07	S100B	Bos taurus S100 calcium binding protein B (S100B), mRNA. [Source:RefSeq mRNA;Acc:NM_001034555]
ENSBTAG00000004075	1.793112413	1.61E-07	IDI1	Bos taurus isopentenyl-diphosphate delta isomerase 1 (IDI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075659]
ENSBTAG00000012977	1.861551721	1.65E-07	COMTD1	Bos taurus catechol-O-methyltransferase domain containing 1 (COMTD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105368]
ENSBTAG00000000109	2.118339732	2.56E-07	NPTXR	neuronal pentraxin receptor [Source:VGNC Symbol;Acc:VGNC:32220]
ENSBTAG00000009835	2.079620067	2.77E-07	CACNA1G	Bos taurus calcium voltage-gated channel subunit alpha1 G (CACNA1G), mRNA. [Source:RefSeq mRNA;Acc:NM_001193140]
ENSBTAG00000013527	1.822217674	3.41E-07	PGD	phosphogluconate dehydrogenase [Source:VGNC Symbol;Acc:VGNC:32786]
ENSBTAG00000011635	2.397078538	5.28E-07	CENPN	Bos taurus centromere protein N (CENPN), mRNA. [Source:RefSeq mRNA;Acc:NM_001038099]
ENSBTAG00000046547	1.704255842	5.28E-07	CIDEA	Bos taurus cell death-inducing DFFA-like effector a (CIDEA), mRNA. [Source:RefSeq mRNA;Acc:NM_001083449]
ENSBTAG00000014911	1.779722612	5.53E-07	LEP	Bos taurus leptin (LEP), mRNA. [Source:RefSeq mRNA;Acc:NM_173928]
ENSBTAG00000003504	1.859290869	5.53E-07	GSS	Bos taurus glutathione synthetase (GSS), mRNA. [Source:RefSeq mRNA;Acc:NM_001015630]
ENSBTAG00000038865	-2.20652803	7.04E-07	TCEA3	transcription elongation factor A3 [Source:VGNC Symbol;Acc:VGNC:35681]

ENSBTAG00000011839	1.612790871	7.90E-07	HMGCS1	Bos taurus 3-hydroxy-3-methylglutaryl-CoA synthase 1 (HMGCS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206578]
ENSBTAG00000010578	2.173396535	9.51E-07	IL17B	Bos taurus interleukin 17B (IL17B), mRNA. [Source:RefSeq mRNA;Acc:NM_001192045]
novel.466	3.931644851	9.51E-07	-	-
ENSBTAG00000012314	1.439686914	1.26E-06	LDLR	Bos taurus low density lipoprotein receptor (LDLR), mRNA. [Source:RefSeq mRNA;Acc:NM_001166530]
novel.997	2.41960495	1.26E-06	-	-
ENSBTAG00000005681	2.200390393	1.26E-06	ME1	Bos taurus malic enzyme 1 (ME1), mRNA. [Source:RefSeq mRNA;Acc:NM_001144853]
ENSBTAG00000010371	2.406575145	1.26E-06	CHAC1	ChaC glutathione specific gamma-glutamylcyclotransferase 1 [Source:VGNC Symbol;Acc:VGNC:27262]
ENSBTAG00000013411	1.203811465	1.55E-06	ENO1	Bos taurus enolase 1 (ENO1), mRNA. [Source:RefSeq mRNA;Acc:NM_174049]
ENSBTAG00000013303	1.806427272	1.55E-06	ACSS2	Bos taurus acyl-CoA synthetase short chain family member 2 (ACSS2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105339]
ENSBTAG00000001785	2.598453944	1.72E-06	TGM3	Bos taurus transglutaminase 3 (TGM3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101848]
ENSBTAG00000026913	1.306464255	1.93E-06	HHIPL1	HHIP like 1 [Source:VGNC Symbol;Acc:VGNC:29841]
ENSBTAG00000046753	1.662125867	2.27E-06	-	insulin receptor substrate 1-like [Source:NCBI gene;Acc:107131843]
ENSBTAG00000010734	1.327893913	3.15E-06	NOP16	NOP16 nucleolar protein [Source:VGNC Symbol;Acc:VGNC:32166]
ENSBTAG00000010742	2.31629453	3.34E-06	PKD2L1	polycystin 2 like 1, transient receptor potential cation channel [Source:VGNC Symbol;Acc:VGNC:32936]
ENSBTAG00000017567	1.691975727	3.82E-06	ACACA	Bos taurus acetyl-CoA carboxylase alpha (ACACA), mRNA. [Source:RefSeq mRNA;Acc:NM_174224]

ENSBTAG00000039105	2.942832583	4.94E-06	S100A3	Bos taurus S100 calcium binding protein A3 (S100A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001083530]
ENSBTAG00000017067	1.296783678	5.16E-06	BUD23	BUD23, rRNA methyltransferase and ribosome maturation factor [Source:VGNC Symbol;Acc:VGNC:26608]
ENSBTAG00000011463	1.981310362	5.80E-06	MID1IP1	Bos taurus MID1 interacting protein 1 (MID1IP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076383]
ENSBTAG00000000644 novel.286	2.921815825 2.466531763	6.89E-06 8.05E-06	S100A5 -	Bos taurus S100 calcium binding protein A5 (S100A5), mRNA. [Source:RefSeq mRNA;Acc:NM_001192215] -
ENSBTAG00000019669	1.572647309	9.49E-06	CD163	Bos taurus CD163 molecule (CD163), mRNA. [Source:RefSeq mRNA;Acc:NM_001163413]
ENSBTAG00000021263	-1.751963148	9.50E-06	CYP4V2	Bos taurus cytochrome P450, family 4, subfamily V, polypeptide 2 (CYP4V2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034373]
ENSBTAG00000013185	1.913761415	1.07E-05	TIMD4	Bos taurus T cell immunoglobulin and mucin domain containing 4 (TIMD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001075320]
ENSBTAG00000009231	1.477638511	1.13E-05	NSDHL	Bos taurus NAD(P) dependent steroid dehydrogenase-like (NSDHL), mRNA. [Source:RefSeq mRNA;Acc:NM_001035482]
ENSBTAG00000006354	2.419837447	1.28E-05	-	-
ENSBTAG00000018413	1.496029773	1.34E-05	TENT5B	Bos taurus terminal nucleotidyltransferase 5B (TENT5B), mRNA. [Source:RefSeq mRNA;Acc:NM_001045950]
ENSBTAG00000020127	4.311451562	1.53E-05	TKTL1	Bos taurus transketolase like 1 (TKTL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001045972]
ENSBTAG00000002178	1.355280264	1.72E-05	PPL	periplakin [Source:VGNC Symbol;Acc:VGNC:33208]
ENSBTAG00000013347	1.308620228	2.29E-05	DMPK	DM1 protein kinase [Source:VGNC Symbol;Acc:VGNC:28109]
ENSBTAG00000018438	-1.990381621	2.30E-05	RRAGD	Bos taurus Ras related GTP binding D (RRAGD), mRNA. [Source:RefSeq mRNA;Acc:NM_001192828]

ENSBTAG00000018937	1.255593023	2.69E-05	HMOX2	Bos taurus heme oxygenase 2 (HMOX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035087]
ENSBTAG00000004413	-1.179688234	2.75E-05	RHOBTB3	Rho related BTB domain containing 3 [Source:VGNC Symbol;Acc:VGNC:33946]
ENSBTAG00000000061	1.233097187	2.75E-05	PCDH7	protocadherin 7 [Source:VGNC Symbol;Acc:VGNC:32621]
ENSBTAG00000003711	0.994439865	2.77E-05	EPAS1	endothelial PAS domain protein 1 [Source:VGNC Symbol;Acc:VGNC:28518]
ENSBTAG00000006779	-1.17782774	2.77E-05	LDHD	Bos taurus lactate dehydrogenase D (LDHD), mRNA. [Source:RefSeq mRNA;Acc:NM_001075443]
ENSBTAG00000009570	4.007148179	3.16E-05	ANGPTL8	angiopoietin like 8 [Source:VGNC Symbol;Acc:VGNC:25896]
ENSBTAG00000007741	2.681047084	3.64E-05	CRLF1	cytokine receptor like factor 1 [Source:VGNC Symbol;Acc:VGNC:27717]
ENSBTAG00000054306	1.510718959	3.64E-05	-	-
ENSBTAG00000020801	1.551687226	3.90E-05	FAM49B	family with sequence similarity 49 member B [Source:VGNC Symbol;Acc:VGNC:28819]
ENSBTAG00000035544	1.807818264	4.41E-05	CYP46A1	Bos taurus cytochrome P450, family 46, subfamily A, polypeptide 1 (CYP46A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076810]
novel.924	-1.573491026	4.47E-05	-	-
ENSBTAG00000048155	2.371834432	4.53E-05	FCN1	ficolin 1 [Source:NCBI gene;Acc:497016]
ENSBTAG00000022242	1.14491609	4.53E-05	DPP3	Bos taurus dipeptidyl peptidase 3 (DPP3), mRNA. [Source:RefSeq mRNA;Acc:NM_001024513]
ENSBTAG00000007962	1.012640617	5.29E-05	ATP9A	ATPase phospholipid transporting 9A (putative) [Source:NCBI gene;Acc:516579]
ENSBTAG00000005586	-1.259455288	5.62E-05	GATM	Bos taurus glycine amidinotransferase (GATM), mRNA. [Source:RefSeq mRNA;Acc:NM_001045878]
ENSBTAG00000017670	1.97082912	6.05E-05	-	guanylate-binding protein 1 [Source:NCBI gene;Acc:511531]
ENSBTAG00000016267	-0.720971309	6.06E-05	SERPING1	Bos taurus serpin family G member 1 (SERPING1), mRNA. [Source:RefSeq mRNA;Acc:NM_174821]

ENSBTAG00000008611	0.899724228	6.06E-05	IGFBP4	Bos taurus insulin like growth factor binding protein 4 (IGFBP4), mRNA. [Source:RefSeq mRNA;Acc:NM_174557]
ENSBTAG00000020766	1.10912949	6.06E-05	ABCA7	ATP binding cassette subfamily A member 7 [Source:VGNC Symbol;Acc:VGNC:25461]
ENSBTAG00000002216	-4.920196469	6.44E-05	MYOD1	Bos taurus myogenic differentiation 1 (MYOD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001040478]
ENSBTAG00000003963	1.588959834	6.86E-05	FER1L5	fer-1 like family member 5 [Source:VGNC Symbol;Acc:VGNC:28949]
ENSBTAG00000026758	2.199863391	7.06E-05	-	-
ENSBTAG00000027879	1.32176899	7.12E-05	MPC1	mitochondrial pyruvate carrier 1 [Source:VGNC Symbol;Acc:VGNC:31569]
ENSBTAG00000054228	1.634406183	7.32E-05	-	-
ENSBTAG00000039319	2.862990956	7.81E-05	-	-
ENSBTAG00000003642	1.201972203	8.28E-05	PRDX1	peroxiredoxin 1 [Source:VGNC Symbol;Acc:VGNC:33299]
ENSBTAG00000002412	0.869166636	8.28E-05	CYB5B	cytochrome b5 type B [Source:VGNC Symbol;Acc:VGNC:49139]
ENSBTAG00000017512	-1.659468599	8.51E-05	MAPT	microtubule associated protein tau [Source:VGNC Symbol;Acc:VGNC:57143]
ENSBTAG00000006410	0.896434719	9.38E-05	DCTN5	Bos taurus dynactin subunit 5 (DCTN5), mRNA. [Source:RefSeq mRNA;Acc:NM_001024484]
ENSBTAG00000054516	6.089499211	9.43E-05	CYP17A1	steroid 17-alpha-hydroxylase/17,20 lyase [Source:NCBI gene;Acc:112441470]
ENSBTAG00000053443	2.284730198	9.65E-05	RUM1	Bos taurus syncytin-Rum1 (RUM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001305454]
ENSBTAG00000011666	1.603157809	0.000106	THRSP	Bos taurus thyroid hormone responsive (THRSP), mRNA. [Source:RefSeq mRNA;Acc:NM_001040533]
ENSBTAG00000013147	4.602143616	0.000131	NEFH	neurofilament heavy [Source:VGNC Symbol;Acc:VGNC:31985]
ENSBTAG00000008605	1.790504577	0.000136	DNAH2	Bos taurus dynein axonemal heavy chain 2 (DNAH2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191249]

ENSBTAG00000020172	-2.099222367	0.000146	DENND2D	Bos taurus DENN domain containing 2D (DENND2D), mRNA. [Source:RefSeq mRNA;Acc:NM_001075168]
ENSBTAG00000015520	3.021511503	0.000148	SLC11A1	Bos taurus solute carrier family 11 member 1 (SLC11A1), mRNA. [Source:RefSeq mRNA;Acc:NM_174652]
ENSBTAG00000009639	-3.380004957	0.000152	SMPD3	Bos taurus sphingomyelin phosphodiesterase 3 (SMPD3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192363]
ENSBTAG00000016234	-3.675870576	0.000152	DUOX2	dual oxidase 2 [Source:VGNC Symbol;Acc:VGNC:28242]
ENSBTAG00000029828	-1.390567235	0.000161	-	-
ENSBTAG00000020729	-1.127945242	0.000178	DHRS7	Bos taurus dehydrogenase/reductase 7 (DHRS7), mRNA. [Source:RefSeq mRNA;Acc:NM_001046162]
ENSBTAG00000053003	1.271507511	0.000178	GPX4	Bos taurus glutathione peroxidase 4 (GPX4), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_174770]
ENSBTAG00000007644	1.15936988	0.000178	GNG7	Bos taurus G protein subunit gamma 7 (GNG7), mRNA. [Source:RefSeq mRNA;Acc:NM_001113314]
ENSBTAG00000015177	1.374065155	0.000183	PRSS23	Bos taurus serine protease 23 (PRSS23), mRNA. [Source:RefSeq mRNA;Acc:NM_001080306]
ENSBTAG00000006161	-1.568588512	0.000185	MET	Bos taurus MET proto-oncogene, receptor tyrosine kinase (MET), mRNA. [Source:RefSeq mRNA;Acc:NM_001012999]
ENSBTAG00000023529	-3.312892294	0.000185	SPEF2	sperm flagellar 2 [Source:VGNC Symbol;Acc:VGNC:35202]
ENSBTAG00000025181	1.607142859	0.000185	CCDC85C	coiled-coil domain containing 85C [Source:VGNC Symbol;Acc:VGNC:26925]
ENSBTAG00000013898	3.210955199	0.000194	NPB	neuropeptide B [Source:VGNC Symbol;Acc:VGNC:32192]
ENSBTAG00000002356	1.517181253	0.000227	RBM47	Bos taurus RNA binding motif protein 47 (RBM47), mRNA. [Source:RefSeq mRNA;Acc:NM_001206034]
ENSBTAG00000016148	1.543435441	0.000234	-	-
ENSBTAG00000003450	1.047442286	0.00027	ATP6V1H	Bos taurus ATPase H ⁺ transporting V1 subunit H (ATP6V1H), mRNA. [Source:RefSeq mRNA;Acc:NM_174704]

ENSBTAG00000015606	2.290439437	0.000275	KAZN	kazrin, periplakin interacting protein [Source:VGNC Symbol;Acc:VGNC:30411]
ENSBTAG00000016091	-1.56881803	0.000293	KLHL25	Bos taurus kelch like family member 25 (KLHL25), mRNA. [Source:RefSeq mRNA;Acc:NM_001192686]
ENSBTAG00000015978	1.016078102	0.000293	ANXA1	annexin A1 [Source:VGNC Symbol;Acc:VGNC:50196] Bos taurus BOC cell adhesion associated, oncogene regulated (BOC), mRNA. [Source:RefSeq mRNA;Acc:NM_001206219]
ENSBTAG00000013909	0.99009771	0.000322	BOC	
ENSBTAG00000002326	1.115097681	0.000325	LGALS3	galectin 3 [Source:VGNC Symbol;Acc:VGNC:30852]
ENSBTAG00000011412	-1.065905357	0.000325	LAMB1	Bos taurus laminin subunit beta 1 (LAMB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206519]
ENSBTAG000000053970	3.804129912	0.000325	SOST	Bos taurus sclerostin (SOST), mRNA. [Source:RefSeq mRNA;Acc:NM_001166514]
ENSBTAG00000005403	0.914995424	0.000334	ADI1	acireductone dioxygenase 1 [Source:VGNC Symbol;Acc:VGNC:25675]
ENSBTAG00000000993	-1.012425849	0.000349	N4BP2L1	NEDD4 binding protein 2 like 1 [Source:VGNC Symbol;Acc:VGNC:53826]
ENSBTAG00000010564	2.525347837	0.000349	ELOVL6	ELOVL fatty acid elongase 6 [Source:VGNC Symbol;Acc:VGNC:28452]
ENSBTAG00000010336	1.123341037	0.000349	TALDO1	Bos taurus transaldolase 1 (TALDO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035283]
ENSBTAG00000001151	1.499002547	0.000385	APLP1	Bos taurus amyloid beta precursor like protein 1 (APLP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001038095]
ENSBTAG000000051210	0.98742716	0.000402	-	-
ENSBTAG00000014906	1.325187741	0.000419	VCAN	Bos taurus versican (VCAN), mRNA. [Source:RefSeq mRNA;Acc:NM_181035]
ENSBTAG00000009477	1.379517205	0.00044	PIR	Bos taurus pirin (PIR), mRNA. [Source:RefSeq mRNA;Acc:NM_001102358]
ENSBTAG00000020573	-1.443296475	0.00046	SCUBE2	signal peptide, CUB domain and EGF like domain containing 2 [Source:VGNC Symbol;Acc:VGNC:34372]

ENSBTAG00000020676	3.340610034	0.000467	MMP9	Bos taurus matrix metalloproteinase 9 (MMP9), mRNA. [Source:RefSeq mRNA;Acc:NM_174744]
ENSBTAG00000012970	1.1963098	0.000482	FAM53B	family with sequence similarity 53 member B [Source:VGNC Symbol;Acc:VGNC:55949]
ENSBTAG00000018189	3.462226135	0.000539	CSTB	cystatin B (stefin B) [Source:NCBI gene;Acc:514170]
ENSBTAG00000002938	-1.143076536	0.000565	CPED1	cadherin like and PC-esterase domain containing 1 [Source:VGNC Symbol;Acc:VGNC:27651]
ENSBTAG00000007159	-1.163128064	0.000565	ESR1	Bos taurus estrogen receptor 1 (ESR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001001443]
ENSBTAG000000053457	1.327218428	0.000567	-	-
ENSBTAG000000019665	2.276362159	0.000567	IL1RN	interleukin 1 receptor antagonist [Source:VGNC Symbol;Acc:VGNC:30136]
ENSBTAG000000051102	1.056776425	0.000573	KCNK3	potassium two pore domain channel subfamily K member 3 [Source:NCBI gene;Acc:519188]
ENSBTAG000000000873	1.091093479	0.000579	SLC13A3	Bos taurus solute carrier family 13 member 3 (SLC13A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001080288]
ENSBTAG000000021036	0.886203056	0.000579		membrane associated ring-CH-type finger 2 [Source:VGNC Symbol;Acc:VGNC:31238]
ENSBTAG000000030255	1.474477795	0.000579	PDXP	pyridoxal phosphatase [Source:VGNC Symbol;Acc:VGNC:32722]
ENSBTAG000000004108	0.961449715	0.000579	CENPX	Bos taurus centromere protein X (CENPX), mRNA. [Source:RefSeq mRNA;Acc:NM_001114527]
ENSBTAG000000006244	0.789112443	0.000581	WDR83OS	WD repeat domain 83 opposite strand [Source:VGNC Symbol;Acc:VGNC:52897]
ENSBTAG000000007958	4.303786275	0.000588	TNS4	Bos taurus tensin 4 (TNS4), mRNA. [Source:RefSeq mRNA;Acc:NM_001038155]
ENSBTAG000000007791	-3.633976832	0.000588	KCNQ5	potassium voltage-gated channel subfamily Q member 5 [Source:VGNC Symbol;Acc:VGNC:53795]

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ENSBTAG00000019044	0.649830392	0.000588	BAIAP2	Bos taurus BAI1 associated protein 2 (BAIAP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001017937]
ENSBTAG00000020707	-1.452979273	0.000612	ADGRG6	adhesion G protein-coupled receptor G6 [Source:VGNC Symbol;Acc:VGNC:25669]
ENSBTAG00000012003	0.764211893	0.000631	PPIA	Bos taurus peptidylprolyl isomerase A (PPIA), mRNA. [Source:RefSeq mRNA;Acc:NM_178320]
ENSBTAG00000020203	2.113411085	0.000631	TMEM151A	Bos taurus transmembrane protein 151A (TMEM151A), mRNA. [Source:RefSeq mRNA;Acc:NM_001083782]
novel.233	3.81377945	0.000636	-	-
novel.264	2.449176533	0.000661	-	-
ENSBTAG00000003568	4.353604197	0.000704	CLDN10	Bos taurus claudin 10 (CLDN10), transcript variant 2, mRNA. [Source:RefSeq mRNA;Acc:NM_001105609]
ENSBTAG000000051567	1.763240453	0.000709	-	-
ENSBTAG000000009634	1.016709381	0.000721	HOXC5	homeobox C5 [Source:VGNC Symbol;Acc:VGNC:56208]
ENSBTAG000000008294	-1.186972074	0.000735	KCNJ2	Bos taurus potassium voltage-gated channel subfamily J member 2 (KCNJ2), mRNA. [Source:RefSeq mRNA;Acc:NM_174373]
ENSBTAG00000001471	0.982663677	0.000735	POC1A	POC1 centriolar protein A [Source:VGNC Symbol;Acc:VGNC:50094]
ENSBTAG00000014005	1.307831459	0.00076	PPIP5K1	Bos taurus diphosphoinositol pentakisphosphate kinase 1 (PPIP5K1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105354]
ENSBTAG00000017943	1.732116427	0.000769	GALNT6	Bos taurus polypeptide N-acetylgalactosaminyltransferase 6 (GALNT6), mRNA. [Source:RefSeq mRNA;Acc:NM_001015534]
novel.492	3.719658339	0.000802	-	-
novel.957	1.966266575	0.000813	-	-
ENSBTAG00000003773	1.1756485	0.000835	SLC25A13	solute carrier family 25 member 13 [Source:VGNC Symbol;Acc:VGNC:34744]
novel.898	1.902832655	0.000922	-	-

ENSBTAG00000011987 novel.747	1.143037673 2.048929687	0.000947 0.000969	ERG28 -	Bos taurus ergosterol biosynthesis 28 homolog (ERG28), mRNA. [Source:RefSeq mRNA;Acc:NM_001035423] -
ENSBTAG00000008013	-2.936513744	0.000969	LRRC2	Bos taurus leucine rich repeat containing 2 (LRRC2), mRNA. [Source:RefSeq mRNA;Acc:NM_001080311]
ENSBTAG00000008102	2.070677744	0.000969	CRTAC1	Bos taurus cartilage acidic protein 1 (CRTAC1), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001191289]
ENSBTAG00000017716	2.077865343	0.000978	BEGAIN	Bos taurus brain enriched guanylate kinase associated (BEGAIN), mRNA. [Source:RefSeq mRNA;Acc:NM_001075902]
ENSBTAG00000032057	-3.272849218	0.000978	-	-
ENSBTAG00000006631	2.052912448	0.000978	GLI1	Bos taurus GLI family zinc finger 1 (GLI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099000]
ENSBTAG00000048565	1.248856841	0.000997	BASP1	Bos taurus brain abundant membrane attached signal protein 1 (BASP1), mRNA. [Source:RefSeq mRNA;Acc:NM_174780]
ENSBTAG00000007759	1.299841676	0.001014	ABCB8	ATP binding cassette subfamily B member 8 [Source:VGNC Symbol;Acc:VGNC:25466]
ENSBTAG00000005843	1.152780646	0.001014	REXO2	Bos taurus RNA exonuclease 2 (REXO2), mRNA. [Source:RefSeq mRNA;Acc:NM_001081735]
ENSBTAG00000020598	2.223934647	0.001037	PPP2R2C	protein phosphatase 2 regulatory subunit Bgamma [Source:VGNC Symbol;Acc:VGNC:33257]
ENSBTAG00000012676	2.789320454	0.00106	KRT79	keratin 79 [Source:VGNC Symbol;Acc:VGNC:30741]
ENSBTAG00000015478	1.368615316	0.001062	SRD5A1	Bos taurus steroid 5 alpha-reductase 1 (SRD5A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099137]
ENSBTAG00000020037	0.74420268	0.00107	CYB5RL	cytochrome b5 reductase-like [Source:NCBI gene;Acc:526748]
ENSBTAG00000012638	2.227606648	0.001072	S100A12	S100 calcium binding protein A12 [Source:NCBI gene;Acc:282467]

ENSBTAG00000012071	-1.488953212	0.001072	ASGR1	asialoglycoprotein receptor 1 [Source:VGNC Symbol;Acc:VGNC:26209]
ENSBTAG00000055145	0.767589199	0.001096	-	solute carrier family 25 member 10 [Source:NCBI gene;Acc:100848134]
ENSBTAG00000046671	1.20861441	0.00111	WFS1	wolframin ER transmembrane glycoprotein [Source:VGNC Symbol;Acc:VGNC:36936]
ENSBTAG00000010487	0.890682961	0.001121	SMIM3	Bos taurus small integral membrane protein 3 (SMIM3), mRNA. [Source:RefSeq mRNA;Acc:NM_001244119]
novel.170	2.737293308	0.001144	-	-
ENSBTAG00000006785	0.845712904	0.001145	ARF2	Bos taurus ADP-ribosylation factor 2 (ARF2), mRNA. [Source:RefSeq mRNA;Acc:NM_174689]
ENSBTAG00000004869	-1.231598484	0.001173	CXADR	CXADR, Ig-like cell adhesion molecule [Source:VGNC Symbol;Acc:VGNC:53521]
ENSBTAG00000003454	4.590886679	0.001186	RGS20	regulator of G protein signaling 20 [Source:VGNC Symbol;Acc:VGNC:33919]
ENSBTAG00000000053	-0.908854179	0.001192	FILIP1	Bos taurus filamin A interacting protein 1 (FILIP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192362]
ENSBTAG00000000908	-1.310323696	0.001192	HCAR1	Bos taurus hydroxycarboxylic acid receptor 1 (HCAR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001145234]
ENSBTAG00000054572	-1.082427417	0.001224	PEG3	Bos taurus paternally expressed 3 (PEG3), mRNA. [Source:RefSeq mRNA;Acc:NM_001002887]
ENSBTAG00000004680	3.523631589	0.001247	SLC13A5	Bos taurus solute carrier family 13 member 5 (SLC13A5), mRNA. [Source:RefSeq mRNA;Acc:NM_001191446]
ENSBTAG00000013880	2.29884455	0.001247	WWC1	WW and C2 domain containing 1 [Source:VGNC Symbol;Acc:VGNC:36974]
ENSBTAG00000020590	1.5624953	0.001247	FZD2	frizzled class receptor 2 [Source:VGNC Symbol;Acc:VGNC:29167]
ENSBTAG00000017697	-0.71917164	0.001247	CTF1	cardiotrophin 1 [Source:VGNC Symbol;Acc:VGNC:27793]
ENSBTAG00000004653	-0.838202636	0.001265	ADGRA3	adhesion G protein-coupled receptor A3 [Source:VGNC Symbol;Acc:VGNC:25657]

ENSBTAG00000047664	1.851113268	0.001308	GNAZ	G protein subunit alpha z [Source:NCBI gene;Acc:112442078]
ENSBTAG00000015187	1.064669288	0.001308	DDX41	DEAD-box helicase 41 [Source:VGNC Symbol;Acc:VGNC:27967]
ENSBTAG00000009086	1.051016435	0.001308	LOXL1	lysyl oxidase like 1 [Source:VGNC Symbol;Acc:VGNC:30952]
ENSBTAG00000013455	-0.97930377	0.001358	SPOPL	speckle type BTB/POZ protein like [Source:VGNC Symbol;Acc:VGNC:35230]
ENSBTAG00000003178	-0.851914207	0.001376	ATE1	arginyltransferase 1 [Source:VGNC Symbol;Acc:VGNC:26238]
ENSBTAG00000016704	1.44329561	0.001376	SLC37A2	solute carrier family 37 member 2 [Source:VGNC Symbol;Acc:VGNC:34843]
ENSBTAG00000008528	1.563247617	0.001496	SLC25A1	Bos taurus solute carrier family 25 member 1 (SLC25A1), mRNA. [Source:RefSeq mRNA;Acc:NM_174656]
ENSBTAG00000001992	1.024568204	0.001508	CYP51A1	Bos taurus cytochrome P450, family 51, subfamily A, polypeptide 1 (CYP51A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001025319]
ENSBTAG00000015419	0.870542789	0.00153	ARHGEF37	Bos taurus Rho guanine nucleotide exchange factor (GEF) 37 (ARHGEF37), mRNA. [Source:RefSeq mRNA;Acc:NM_001205932]
ENSBTAG00000013084	0.905563701	0.00153	NAPA	NSF attachment protein alpha [Source:VGNC Symbol;Acc:VGNC:31881]
ENSBTAG00000001058	-2.356542211	0.001538	SRPK3	Bos taurus SRSF protein kinase 3 (SRPK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001083390]
ENSBTAG00000012818	-1.785988912	0.001617	PDLIM5	PDZ and LIM domain 5 [Source:VGNC Symbol;Acc:VGNC:32711]
ENSBTAG00000016615	0.759493688	0.001621	ABHD6	Bos taurus abhydrolase domain containing 6 (ABHD6), mRNA. [Source:RefSeq mRNA;Acc:NM_001075196]
novel.688	2.671056242	0.001623	-	-
ENSBTAG00000018777	0.866334237	0.001623	ADCY5	adenylate cyclase 5 [Source:VGNC Symbol;Acc:VGNC:25646]
ENSBTAG00000007273	2.258719253	0.001667	TF	Bos taurus transferrin (TF), mRNA. [Source:RefSeq mRNA;Acc:NM_177484]

ENSBTAG00000009075	0.868151232	0.001798	RNF207	Bos taurus ring finger protein 207 (RNF207), mRNA. [Source:RefSeq mRNA;Acc:NM_001078057]
ENSBTAG00000009421	1.945318447	0.001798	CD1E	Bos taurus CD1e molecule (CD1E), mRNA. [Source:RefSeq mRNA;Acc:NM_001034394]
ENSBTAG00000009407	-0.879560845	0.001798	MBTD1	mbt domain containing 1 [Source:VGNC Symbol;Acc:VGNC:31290]
ENSBTAG00000000067	1.229938183	0.001798	SDF2L1	stromal cell derived factor 2 like 1 [Source:VGNC Symbol;Acc:VGNC:34386]
ENSBTAG000000031632	1.527280423	0.001836	ADRA1A	adrenoceptor alpha 1A [Source:VGNC Symbol;Acc:VGNC:25693]
ENSBTAG00000001368	1.049496842	0.001914	LGALS3BP	galectin 3 binding protein [Source:VGNC Symbol;Acc:VGNC:30853]
ENSBTAG000000016239	-3.456138073	0.001924	DUOXA2	dual oxidase maturation factor 2 [Source:VGNC Symbol;Acc:VGNC:28244]
novel.1283	-0.857235073	0.002039	-	-
ENSBTAG00000009637	-1.090904671	0.002039	SLC12A2	Bos taurus solute carrier family 12 member 2 (SLC12A2), mRNA. [Source:RefSeq mRNA;Acc:NM_174782]
ENSBTAG000000021444	1.000668232	0.002039	TWIST2	Bos taurus twist family bHLH transcription factor 2 (TWIST2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083748]
ENSBTAG000000016125	-3.592557315	0.002057	KCNA7	potassium voltage-gated channel subfamily A member 7 [Source:VGNC Symbol;Acc:VGNC:30426]
ENSBTAG000000016649	-1.053665272	0.002102	CCND2	cyclin D2 [Source:VGNC Symbol;Acc:VGNC:26963]
ENSBTAG000000040295	1.202133966	0.002106	CHCHD2	Bos taurus coiled-coil-helix-coiled-coil-helix domain containing 2 (CHCHD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034746]
ENSBTAG000000005018	1.672062848	0.002106	NFAM1	NFAT activating protein with ITAM motif 1 [Source:VGNC Symbol;Acc:VGNC:32027]
ENSBTAG000000031287	1.045071355	0.002106	TMEM158	Bos taurus transmembrane protein 158 (TMEM158), mRNA. [Source:RefSeq mRNA;Acc:NM_001081626]
ENSBTAG000000020699	0.821247278	0.002116	TSPAN11	tetraspanin 11 [Source:VGNC Symbol;Acc:VGNC:36426]

ENSBTAG00000010378	0.822790188	0.002182	PEF1	Bos taurus penta-EF-hand domain containing 1 (PEF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001097992]
ENSBTAG00000007013	-1.038451695	0.002283	TOM1L1	Bos taurus target of myb1 like 1 membrane trafficking protein (TOM1L1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075611]
ENSBTAG00000009617	-2.723432207	0.002319	SLC2A1	Bos taurus solute carrier family 2 member 1 (SLC2A1), mRNA. [Source:RefSeq mRNA;Acc:NM_174602]
ENSBTAG00000008523	0.944687	0.002455	TFE3	Bos taurus transcription factor binding to IGHM enhancer 3 (TFE3), mRNA. [Source:RefSeq mRNA;Acc:NM_001075811]
ENSBTAG00000053558	2.524281727	0.002456	NOTUM	notum, palmitoleoyl-protein carboxylesterase [Source:NCBI gene;Acc:525682]
ENSBTAG00000015408	0.949012481	0.002464	DTYMK	Bos taurus deoxythymidylate kinase (DTYMK), mRNA. [Source:RefSeq mRNA;Acc:NM_001098893]
ENSBTAG00000017027	1.267887669	0.002498	MMACHC	Bos taurus metabolism of cobalamin associated C (MMACHC), mRNA. [Source:RefSeq mRNA;Acc:NM_001015588]
ENSBTAG00000005069	1.026909782	0.002512	TM7SF2	transmembrane 7 superfamily member 2 [Source:VGNC Symbol;Acc:VGNC:35910]
ENSBTAG00000004126	-1.660524898	0.002588	MLF1	myeloid leukemia factor 1 [Source:NCBI gene;Acc:533379]
ENSBTAG00000012244	0.934997923	0.002588	TUBA1B	Tubulin alpha-1B chain Detyrosinated tubulin alpha-1B chain [Source:UniProtKB/Swiss-Prot;Acc:P81947]
ENSBTAG00000021467	1.137545832	0.002588	IGFBP6	insulin like growth factor binding protein 6 [Source:VGNC Symbol;Acc:VGNC:30088]
ENSBTAG00000008921	-1.339045963	0.002591	NEXN	nexilin F-actin binding protein [Source:VGNC Symbol;Acc:VGNC:32025]
ENSBTAG00000002266	2.355046666	0.002701	NPL	N-acetylneuraminase pyruvate lyase [Source:VGNC Symbol;Acc:VGNC:32205]
ENSBTAG00000016740	2.279686471	0.002703	ACLY	Bos taurus ATP citrate lyase (ACLY), mRNA. [Source:RefSeq mRNA;Acc:NM_001037457]

ENSBTAG00000044202	-5.567570302	0.002716	CNKSR2	Bos taurus connector enhancer of kinase suppressor of Ras 2 (CNKSR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001206513]
ENSBTAG00000009498	-0.81094528	0.002716	PTEN	Bos taurus phosphatase and tensin homolog (PTEN), mRNA. [Source:RefSeq mRNA;Acc:NM_001319898]
novel.161	3.765699161	0.002716	-	-
ENSBTAG00000009733	-1.199192638	0.002716	FBP1	fructose-bisphosphatase 1 [Source:VGNC Symbol;Acc:VGNC:28887]
ENSBTAG00000011893	0.676518473	0.002717	HDHD2	Bos taurus haloacid dehalogenase like hydrolase domain containing 2 (HDHD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035022]
ENSBTAG00000012249	1.05381087	0.002761	PRR15L	Bos taurus proline rich 15 like (PRR15L), mRNA. [Source:RefSeq mRNA;Acc:NM_001034794]
ENSBTAG00000014884	-0.943553032	0.002763	HIPK3	Bos taurus homeodomain interacting protein kinase 3 (HIPK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001193007]
ENSBTAG00000037673	1.160730669	0.002763	GSTM1	glutathione S-transferase mu 1 [Source:NCBI gene;Acc:783879]
ENSBTAG00000002068	1.08038448	0.002807	TAGLN2	Bos taurus transgelin 2 (TAGLN2), mRNA. [Source:RefSeq mRNA;Acc:NM_001013599]
ENSBTAG00000015133	1.984374897	0.002838	CCR7	Bos taurus C-C motif chemokine receptor 7 (CCR7), mRNA. [Source:RefSeq mRNA;Acc:NM_001024930]
ENSBTAG00000013007	-0.770915127	0.002851	FAM210B	Bos taurus family with sequence similarity 210 member B (FAM210B), mRNA. [Source:RefSeq mRNA;Acc:NM_001080278]
ENSBTAG00000020108	1.174974865	0.002984	LETM1	Bos taurus leucine zipper and EF-hand containing transmembrane protein 1 (LETM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075614]
ENSBTAG00000043969	3.659430299	0.003052	CALN1	Bos taurus calneuron 1 (CALN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206115]
ENSBTAG00000011734	-3.115303473	0.003069	ANKRD1	ankyrin repeat domain 1 [Source:VGNC Symbol;Acc:VGNC:25908]

ENSBTAG00000006434	-1.610589184	0.003077	SYNPO2	Bos taurus synaptopodin 2 (SYNPO2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083751]
ENSBTAG00000002942	1.073794558	0.003077	SLC2A10	solute carrier family 2 member 10 [Source:VGNC Symbol;Acc:VGNC:34797]
ENSBTAG00000005498	0.989864136	0.003077	SQLE	squalene epoxidase [Source:VGNC Symbol;Acc:VGNC:35264]
ENSBTAG00000049309	0.943356954	0.003142	TAF13	TATA-box binding protein associated factor 13 [Source:HGNC Symbol;Acc:HGNC:11546]
novel.41	-1.386566953	0.003217	-	-
ENSBTAG00000013744	-1.542418614	0.003217	SYNPO	Bos taurus synaptopodin (SYNPO), mRNA. [Source:RefSeq mRNA;Acc:NM_001206025]
novel.990	1.58957505	0.003282	-	-
ENSBTAG00000054182	-3.779259378	0.003311	-	-
ENSBTAG00000020143	-0.608072958	0.003366	RDH10	retinol dehydrogenase 10 [Source:VGNC Symbol;Acc:VGNC:33841]
novel.1356	-1.524583355	0.003366	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000014898	1.896308006	0.003393	HK3	Bos taurus hexokinase 3 (HK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101929]
ENSBTAG00000008465	0.607886269	0.003393	ACCS	1-aminocyclopropane-1-carboxylate synthase homolog (inactive) [Source:NCBI gene;Acc:505649]
ENSBTAG00000015582	1.506164037	0.003409	HMOX1	heme oxygenase 1 [Source:VGNC Symbol;Acc:VGNC:29885]
ENSBTAG00000013076	0.8580849	0.003409	SNX19	Bos taurus sorting nexin 19 (SNX19), mRNA. [Source:RefSeq mRNA;Acc:NM_001302940]
ENSBTAG00000021910	-0.925382402	0.003573	TBL1XR1	Bos taurus transducin beta like 1 X-linked receptor 1 (TBL1XR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001193029]
ENSBTAG00000051384	-1.285552336	0.003577	-	-
ENSBTAG00000006345	-4.768600391	0.003632	ART1	Bos taurus ADP-ribosyltransferase 1 (ART1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098098]

ENSBTAG00000007354	1.67032796	0.003632	-	-	
ENSBTAG00000055198	0.81413223	0.003632	-	-	
ENSBTAG00000024493	0.900595728	0.003632	DHRS3		Bos taurus dehydrogenase/reductase 3 (DHRS3), mRNA. [Source:RefSeq mRNA;Acc:NM_174180]
novel.1242	-2.076343394	0.003632	-	-	chromosome 15 C11orf52 homolog [Source:VGNC Symbol;Acc:VGNC:52631]
ENSBTAG00000008661	2.268627196	0.003632	C15H11orf52		
ENSBTAG00000002121	0.926734069	0.003637	CDK2AP2		cyclin dependent kinase 2 associated protein 2 [Source:VGNC Symbol;Acc:VGNC:27126]
ENSBTAG00000049558	5.314058814	0.003637	-	-	cytochrome P450, family 17, subfamily A, polypeptide 1 [Source:NCBI gene;Acc:281739]
ENSBTAG00000013300	-1.801653429	0.003637	KCNMA1		potassium calcium-activated channel subfamily M alpha 1 [Source:VGNC Symbol;Acc:VGNC:30479]
ENSBTAG00000014215	1.121942796	0.003666	CCDC86		coiled-coil domain containing 86 [Source:HGNC Symbol;Acc:HGNC:28359]
ENSBTAG00000007807	1.173552625	0.003808	HSPA2		heat shock protein family A (Hsp70) member 2 [Source:HGNC Symbol;Acc:HGNC:5235]
ENSBTAG00000014958	-1.050089749	0.003828	PRKAR2B		protein kinase cAMP-dependent type II regulatory subunit beta [Source:VGNC Symbol;Acc:VGNC:33326]
ENSBTAG00000047147	-0.867068534	0.00386	CRYBG3		crystallin beta-gamma domain containing 3 [Source:NCBI gene;Acc:516526]
novel.838	3.804765804	0.00387	-	-	
ENSBTAG00000001113	1.030211659	0.003929	NDUFAF7		Bos taurus NADH:ubiquinone oxidoreductase complex assembly factor 7 (NDUFAF7), mRNA. [Source:RefSeq mRNA;Acc:NM_001101049]
ENSBTAG00000021325	-1.34195036	0.003945	SLC19A3		Bos taurus solute carrier family 19 member 3 (SLC19A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001102198]
ENSBTAG00000014771	-0.63230897	0.003945	RBMX2		RNA binding motif protein X-linked 2 [Source:NCBI gene;Acc:613705]
ENSBTAG00000000454	0.993349709	0.004085	TMEM106C		Bos taurus transmembrane protein 106C (TMEM106C), mRNA. [Source:RefSeq mRNA;Acc:NM_001034461]

ENSBTAG00000050078	0.843453472	0.00417	SFXN5	sideroflexin 5 [Source:NCBI gene;Acc:528468]
ENSBTAG00000027337	0.852586811	0.00417	CTSA	Bos taurus cathepsin A (CTSA), mRNA. [Source:RefSeq mRNA;Acc:NM_001035326]
ENSBTAG00000005230	1.021582794	0.00417	SHOX2	Bos taurus short stature homeobox 2 (SHOX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001205527]
ENSBTAG00000012697	0.75964989	0.0042	PGAM1	Bos taurus phosphoglycerate mutase 1 (PGAM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034054]
ENSBTAG00000011694	0.910822196	0.00427	TIMM23	translocase of inner mitochondrial membrane 23 homolog (yeast) [Source:NCBI gene;Acc:509841]
ENSBTAG00000038640	0.982022432	0.004329	-	-
ENSBTAG00000026586	-1.944082658	0.004581	PPP1R14C	Bos taurus protein phosphatase 1 regulatory inhibitor subunit 14C (PPP1R14C), mRNA. [Source:RefSeq mRNA;Acc:NM_001078068]
ENSBTAG00000009226	1.505661153	0.00467	SCUBE3	signal peptide, CUB domain and EGF like domain containing 3 [Source:VGNC Symbol;Acc:VGNC:34373]
ENSBTAG00000021455	0.775022691	0.00467	CFL1	Bos taurus cofilin 1 (CFL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001015655]
ENSBTAG00000015690	0.931985503	0.00467	PLIN4	perilipin 4 [Source:VGNC Symbol;Acc:VGNC:55299]
ENSBTAG00000020527	0.871253587	0.00467	IDH1	isocitrate dehydrogenase (NADP(+)) 1, cytosolic [Source:NCBI gene;Acc:281235]
ENSBTAG00000001027	0.60904681	0.004755	SERPINH1	serpin family H member 1 [Source:VGNC Symbol;Acc:VGNC:34480]
ENSBTAG00000053974	-4.626004214	0.00507	-	-
ENSBTAG00000047238	1.782295557	0.005114	ITGAM	Bos taurus integrin subunit alpha M (ITGAM), mRNA. [Source:RefSeq mRNA;Acc:NM_001039957]
ENSBTAG00000021065	0.958869905	0.005114	MFSD13A	Bos taurus major facilitator superfamily domain containing 13A (MFSD13A), mRNA. [Source:RefSeq mRNA;Acc:NM_001014925]
ENSBTAG00000018253	-1.332366186	0.005114	CHRNA1	Bos taurus cholinergic receptor nicotinic alpha 1 subunit (CHRNA1), mRNA. [Source:RefSeq mRNA;Acc:NM_176664]

ENSBTAG00000044126	-1.120935473	0.005114	SNTB1	syntrophin beta 1 [Source:HGNC Symbol;Acc:HGNC:11168]
ENSBTAG00000020030	0.850748114	0.005114	FITM2	Bos taurus fat storage inducing transmembrane protein 2 (FITM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001103095]
ENSBTAG00000013251	0.858234153	0.005114	HDGFL2	HDGF like 2 [Source:NCBI gene;Acc:512959]
ENSBTAG00000019851	0.925042105	0.005217	PPP2R1A	Bos taurus protein phosphatase 2 scaffold subunit Aalpha (PPP2R1A), mRNA. [Source:RefSeq mRNA;Acc:NM_001037477]
ENSBTAG00000016350	1.030448695	0.005217	NACC1	Bos taurus nucleus accumbens associated 1 (NACC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192612]
ENSBTAG00000017086	-0.798718142	0.005217	GRB10	Bos taurus growth factor receptor bound protein 10 (GRB10), mRNA. [Source:RefSeq mRNA;Acc:NM_001192586]
novel.560	2.543527143	0.00528	-	PF00047:Immunoglobulin domain
ENSBTAG00000010957	0.845220042	0.00528	LHPP	Bos taurus phospholysine phosphohistidine inorganic pyrophosphate phosphatase (LHPP), mRNA. [Source:RefSeq mRNA;Acc:NM_001080912]
ENSBTAG00000046177	-5.107910435	0.00528	-	-
ENSBTAG00000016595	0.886121499	0.005307	CYSTM1	Bos taurus cysteine rich transmembrane module containing 1 (CYSTM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078164]
ENSBTAG00000005691	-1.02006114	0.005307	FGF2	Bos taurus fibroblast growth factor 2 (FGF2), mRNA. [Source:RefSeq mRNA;Acc:NM_174056]
ENSBTAG00000036113	2.183554139	0.005307	RSPH14	radial spoke head 14 homolog [Source:VGNC Symbol;Acc:VGNC:34183]
ENSBTAG00000017851	0.91135659	0.005369	RXRA	Bos taurus retinoid X receptor alpha (RXRA), mRNA. [Source:RefSeq mRNA;Acc:NM_001304343]
ENSBTAG00000010517	3.302252385	0.005369	EVPL	envoplakin [Source:VGNC Symbol;Acc:VGNC:55823]
ENSBTAG00000040298	1.308001923	0.005403	GSTT1	Bos taurus glutathione S-transferase theta 1 (GSTT1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046232]

ENSBTAG00000010692	0.723633654	0.005403	SND1	Bos taurus staphylococcal nuclease and tudor domain containing 1 (SND1), mRNA. [Source:RefSeq mRNA;Acc:NM_205784]
ENSBTAG00000007704	-0.980427202	0.005419	ELOVL7	Bos taurus ELOVL fatty acid elongase 7 (ELOVL7), mRNA. [Source:RefSeq mRNA;Acc:NM_001078042]
ENSBTAG00000047635	0.970378441	0.005419	MRO	maestro [Source:VGNC Symbol;Acc:VGNC:31608]
ENSBTAG00000014685	0.854729214	0.005419	HPRT1	hypoxanthine phosphoribosyltransferase 1 [Source:NCBI gene;Acc:281229]
ENSBTAG00000030990	0.863838243	0.005419	UQCC1	Bos taurus ubiquinol-cytochrome c reductase complex assembly factor 1 (UQCC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076508]
ENSBTAG00000019297	-1.30073758	0.005429	GFRA1	Bos taurus GDNF family receptor alpha 1 (GFRA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105411]
ENSBTAG00000020198	2.570518935	0.00546	METRN	meteorin, glial cell differentiation regulator [Source:VGNC Symbol;Acc:VGNC:31398]
ENSBTAG00000001395	-1.267677642	0.00546	C1H21orf91	Bos taurus chromosome 1 C21orf91 homolog (C1H21orf91), mRNA. [Source:RefSeq mRNA;Acc:NM_001037617]
ENSBTAG00000049383	1.220305866	0.00546	LSAMP	Bos taurus limbic system associated membrane protein (LSAMP), mRNA. [Source:RefSeq mRNA;Acc:NM_001205368]
ENSBTAG00000049838	1.557918976	0.005564	-	-
ENSBTAG00000006601	-0.788679209	0.00557	KSR1	kinase suppressor of ras 1 [Source:VGNC Symbol;Acc:VGNC:30754]
ENSBTAG00000003604	0.820028153	0.00557	ADAMTSL4	Bos taurus ADAMTS like 4 (ADAMTSL4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101061]
ENSBTAG00000013071	0.985281359	0.005694	GPR153	G protein-coupled receptor 153 [Source:VGNC Symbol;Acc:VGNC:29560]
ENSBTAG00000006245	0.81782053	0.005712	WDR83	WD repeat domain 83 [Source:VGNC Symbol;Acc:VGNC:36923]
ENSBTAG00000004964	-1.021480943	0.005712	PCGF5	Bos taurus polycomb group ring finger 5 (PCGF5), mRNA. [Source:RefSeq mRNA;Acc:NM_001077980]

ENSBTAG00000051206	-3.845230015	0.005712	KY	kyphoscoliosis peptidase [Source:HGNC Symbol;Acc:HGNC:26576]
ENSBTAG00000025401	1.374619946	0.005712	DOK3	Bos taurus docking protein 3 (DOK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001205324]
ENSBTAG00000004547	2.173239408	0.005726	OLR1	oxidized low density lipoprotein receptor 1 [Source:VGNC Symbol;Acc:VGNC:32427]
ENSBTAG00000034776	-1.429121306	0.00576	DDAH1	Bos taurus dimethylarginine dimethylaminohydrolase 1 (DDAH1), mRNA. [Source:RefSeq mRNA;Acc:NM_001102201]
ENSBTAG00000021691	0.783409347	0.005883	PSMD14	proteasome 26S subunit, non-ATPase 14 [Source:VGNC Symbol;Acc:VGNC:33465]
ENSBTAG00000032217	0.782713759	0.005883	-	-
ENSBTAG00000048942	-2.0157149	0.005894	-	-
ENSBTAG00000000205	0.884942338	0.005904	MMD	Bos taurus monocyte to macrophage differentiation associated (MMD), mRNA. [Source:RefSeq mRNA;Acc:NM_001075601]
ENSBTAG00000053223	-0.693855269	0.005904	CTDSPL	CTD small phosphatase like [Source:NCBI gene;Acc:538425]
ENSBTAG00000030483	2.749119423	0.005904	KLK7	kallikrein related peptidase 7 [Source:VGNC Symbol;Acc:VGNC:30681]
ENSBTAG00000054648	3.306228173	0.005911	-	-
ENSBTAG00000050122	1.23148313	0.005972	HIST2H2BE	-
ENSBTAG00000011075	1.214399088	0.006072	PLPBP	Bos taurus pyridoxal phosphate binding protein (PLPBP), mRNA. [Source:RefSeq mRNA;Acc:NM_001034357]
ENSBTAG00000021067	0.701106773	0.006101	ACTR1A	Bos taurus ARP1 actin related protein 1 homolog A (ACTR1A), mRNA. [Source:RefSeq mRNA;Acc:NM_001193248]
ENSBTAG00000052630	5.137609911	0.006144	-	-
ENSBTAG00000011155	-0.74432859	0.006202	PUM2	pumilio RNA binding family member 2 [Source:VGNC Symbol;Acc:VGNC:33570]
novel.509	-2.053323155	0.006202	-	-

ENSBTAG00000007932	1.102622593	0.006281	HCK	Bos taurus HCK proto-oncogene, Src family tyrosine kinase (HCK), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001110194]
ENSBTAG00000052670	0.762026148	0.006312	CD99L2	Bos taurus CD99 molecule like 2 (CD99L2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083758]
ENSBTAG00000012139	-0.698784638	0.006331	SIX1	SIX homeobox 1 [Source:VGNC Symbol;Acc:VGNC:54483]
ENSBTAG00000013279	1.070858623	0.006331	FOXP3	forkhead box P3 [Source:VGNC Symbol;Acc:VGNC:29102]
ENSBTAG00000006707	0.982690432	0.00642	ACSL5	Bos taurus acyl-CoA synthetase long chain family member 5 (ACSL5), mRNA. [Source:RefSeq mRNA;Acc:NM_001075650]
ENSBTAG00000052955	-2.654272091	0.006427	-	-
ENSBTAG00000008732	-1.230174192	0.006475	ZC3H12C	zinc finger CCCH-type containing 12C [Source:VGNC Symbol;Acc:VGNC:37099]
ENSBTAG00000009287	1.047448761	0.00649	EBP	EBP, cholesterol delta-isomerase [Source:VGNC Symbol;Acc:VGNC:54880]
ENSBTAG00000037651	1.531271913	0.006669	S100A2	S100 calcium binding protein A2 [Source:VGNC Symbol;Acc:VGNC:34242]
ENSBTAG00000052273	1.281412899	0.006675	-	-
ENSBTAG00000005210	1.08120606	0.00681	SNAPC5	Bos taurus small nuclear RNA activating complex polypeptide 5 (SNAPC5), mRNA. [Source:RefSeq mRNA;Acc:NM_001046573]
ENSBTAG00000025632	1.053608629	0.006918	NOP10	Bos taurus NOP10 ribonucleoprotein (NOP10), mRNA. [Source:RefSeq mRNA;Acc:NM_001114521]
ENSBTAG00000012721	1.78746414	0.006944	HOGA1	Bos taurus 4-hydroxy-2-oxoglutarate aldolase 1 (HOGA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075237]
ENSBTAG00000020109	0.885219884	0.006944	TRAP1	Bos taurus TNF receptor associated protein 1 (TRAP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001038675]
ENSBTAG00000052709	-4.592977476	0.007029	-	-
ENSBTAG00000005268	3.919992561	0.007029	PLA2G4D	Bos taurus phospholipase A2 group IVD (PLA2G4D), mRNA. [Source:RefSeq mRNA;Acc:NM_001192704]

ENSBTAG00000006200	0.75310497	0.007043	SLC25A17	solute carrier family 25 member 17 [Source:VGNC Symbol;Acc:VGNC:34746]
ENSBTAG00000001592	0.920023192	0.007299	INSIG1	Bos taurus insulin induced gene 1 (INSIG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077909]
ENSBTAG000000016335	1.307949425	0.007299	NPM3	Bos taurus nucleophosmin/nucleoplasmin 3 (NPM3), mRNA. [Source:RefSeq mRNA;Acc:NM_001205560]
ENSBTAG000000012595	0.910600586	0.007299	RIDA	Bos taurus reactive intermediate imine deaminase A homolog (RIDA), mRNA. [Source:RefSeq mRNA;Acc:NM_001034208]
ENSBTAG000000038426	2.169583074	0.007372	CD1B	Bos taurus CD1b molecule (CD1B), mRNA. [Source:RefSeq mRNA;Acc:NM_001046021]
ENSBTAG000000019916	-1.191517476	0.007596	CLMN	calmin [Source:VGNC Symbol;Acc:VGNC:27452]
ENSBTAG000000051860	-3.972135498	0.007621	-	-
ENSBTAG000000018499	1.41054909	0.007636	ANXA8L1	Bos taurus annexin A8-like 1 (ANXA8L1), mRNA. [Source:RefSeq mRNA;Acc:NM_174241]
ENSBTAG000000013343	0.671541839	0.007667	FTL	Bos taurus ferritin light chain (FTL), mRNA. [Source:RefSeq mRNA;Acc:NM_174792]
novel.497	-0.892228331	0.007709	-	-
ENSBTAG000000015378	-1.342967136	0.007886	CCDC180	coiled-coil domain containing 180 [Source:NCBI gene;Acc:100847289]
ENSBTAG000000014103	0.864174602	0.007906	SH3GL2	SH3 domain containing GRB2 like 2, endophilin A1 [Source:VGNC Symbol;Acc:VGNC:34573]
ENSBTAG000000007439	0.806201232	0.008123	TENM4	teneurin transmembrane protein 4 [Source:VGNC Symbol;Acc:VGNC:35744]
ENSBTAG000000011101	-1.303170581	0.008123	EML6	Bos taurus echinoderm microtubule associated protein like 6 (EML6), mRNA. [Source:RefSeq mRNA;Acc:NM_001192457]
ENSBTAG000000019948	-0.817977193	0.008138	AFAP1L1	actin filament associated protein 1 like 1 [Source:VGNC Symbol;Acc:VGNC:25707]

ENSBTAG00000004077	0.814727011	0.008222	YWHAG	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein gamma [Source:VGNC Symbol;Acc:VGNC:37046]
ENSBTAG00000053534	1.430374799	0.008273	-	-
ENSBTAG00000015273	-1.628515139	0.00834	CAND2	cullin associated and neddylation dissociated 2 (putative) [Source:NCBI gene;Acc:533826]
ENSBTAG00000003423	0.671251582	0.00834	DDX24	Bos taurus DEAD-box helicase 24 (DDX24), mRNA. [Source:RefSeq mRNA;Acc:NM_001099045]
novel.448	-1.179879235	0.00834	-	-
ENSBTAG00000000305	0.724382638	0.008451	LMO4	Bos taurus LIM domain only 4 (LMO4), mRNA. [Source:RefSeq mRNA;Acc:NM_001034751]
ENSBTAG00000012514	-0.823436257	0.008463	PODN	podocan [Source:VGNC Symbol;Acc:VGNC:33101]
ENSBTAG00000021745	-4.310944806	0.008467	RAPSN	receptor associated protein of the synapse [Source:VGNC Symbol;Acc:VGNC:33728]
ENSBTAG00000011752	-1.181084073	0.008467	SYNM	Bos taurus synemin, intermediate filament protein (SYNM), mRNA. [Source:RefSeq mRNA;Acc:NM_001191453]
ENSBTAG00000011322	-0.913158866	0.008508	HIPK1	Bos taurus homeodomain interacting protein kinase 1 (HIPK1), mRNA. [Source:RefSeq mRNA;Acc:NM_001109998]
ENSBTAG00000049588	0.632198607	0.008603	-	-
ENSBTAG00000021187	1.089580887	0.008619	ID2	inhibitor of DNA binding 2 [Source:NCBI gene;Acc:505025]
ENSBTAG00000012953	-2.370898796	0.008619	ASTN1	astrotactin 1 [Source:VGNC Symbol;Acc:VGNC:26227]
ENSBTAG00000005714	-3.501906091	0.008641	ACTC1	Bos taurus actin, alpha, cardiac muscle 1 (ACTC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034585]
ENSBTAG00000019788	-0.940308072	0.008641	TEAD4	TEA domain transcription factor 4 [Source:VGNC Symbol;Acc:VGNC:35727]
ENSBTAG00000045822	0.743290173	0.008641	C15H11orf96	Bos taurus chromosome 15 C11orf96 homolog (C15H11orf96), mRNA. [Source:RefSeq mRNA;Acc:NM_001145035]
ENSBTAG00000033222	1.913398245	0.008708	CALR3	calreticulin 3 [Source:VGNC Symbol;Acc:VGNC:26716]

ENSBTAG00000016933	0.717747413	0.008774	IL27RA	Bos taurus interleukin 27 receptor subunit alpha (IL27RA), mRNA. [Source:RefSeq mRNA;Acc:NM_001098028]
ENSBTAG00000007275	2.246183408	0.0089	TREM2	triggering receptor expressed on myeloid cells 2 [Source:VGNC Symbol;Acc:VGNC:36299] Bos taurus potassium voltage-gated channel subfamily H member 1 (KCNH1), mRNA. [Source:RefSeq mRNA;Acc:NM_174372]
ENSBTAG00000008710	-1.953603174	0.009141	KCNH1	natriuretic peptide receptor 3 [Source:HGNC Symbol;Acc:HGNC:7945]
ENSBTAG00000007665	-1.826057898	0.009143	NPR3	
ENSBTAG00000006579	1.4506702	0.009187	P4HA3	Bos taurus prolyl 4-hydroxylase subunit alpha 3 (P4HA3), mRNA. [Source:RefSeq mRNA;Acc:NM_001001598]
ENSBTAG00000019509	-0.589949279	0.009221	NUDT5	nudix hydrolase 5 [Source:VGNC Symbol;Acc:VGNC:32339]
ENSBTAG00000008181	1.083984221	0.009221	CHAF1A	chromatin assembly factor 1 subunit A [Source:VGNC Symbol;Acc:VGNC:27266]
ENSBTAG00000018735	0.615444096	0.009251	C13H20orf27	Bos taurus chromosome 13 C20orf27 homolog (C13H20orf27), mRNA. [Source:RefSeq mRNA;Acc:NM_001046205]
ENSBTAG00000030322	1.87671036	0.009251	KLHDC7A	kelch domain containing 7A [Source:VGNC Symbol;Acc:VGNC:30637]
ENSBTAG00000045902	1.007071232	0.009464	EPHB2	Bos taurus EPH receptor B2 (EPHB2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191498]
ENSBTAG00000016194	-1.54495118	0.009497	FBXO32	F-box protein 32 [Source:VGNC Symbol;Acc:VGNC:28905]
ENSBTAG00000021140	-0.72577738	0.009513	RMND5A	required for meiotic nuclear division 5 homolog A [Source:VGNC Symbol;Acc:VGNC:33996]
ENSBTAG00000020956	-1.851521326	0.009513	MPPED2	metallophosphoesterase domain containing 2 [Source:VGNC Symbol;Acc:VGNC:31588]
ENSBTAG00000000713	0.785648456	0.009544	AGFG2	ArfGAP with FG repeats 2 [Source:VGNC Symbol;Acc:VGNC:25726]
ENSBTAG00000009174	1.863193646	0.009648	HSD17B14	Bos taurus hydroxysteroid 17-beta dehydrogenase 14 (HSD17B14), mRNA. [Source:RefSeq mRNA;Acc:NM_174701]

novel.874	-0.770331621	0.009729	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000038186	0.871213292	0.009741	GLRX	Bos taurus glutaredoxin (GLRX), mRNA. [Source:RefSeq mRNA;Acc:NM_001037604]
ENSBTAG00000052904	-0.791919078	0.009741	MEX3B	mex-3 RNA binding family member B [Source:NCBI gene;Acc:539904]
ENSBTAG00000003068	0.967074055	0.009741	MSMO1	methylsterol monooxygenase 1 [Source:VGNC Symbol;Acc:VGNC:31701]
ENSBTAG00000020701	-0.772350806	0.009741	MEF2C	myocyte enhancer factor 2C [Source:VGNC Symbol;Acc:VGNC:31373]
ENSBTAG00000000087	1.183999352	0.009741	HSD17B12	hydroxysteroid 17-beta dehydrogenase 12 [Source:VGNC Symbol;Acc:VGNC:54883]
ENSBTAG00000012083	0.848586124	0.009741	IRX3	iroquois homeobox 3 [Source:VGNC Symbol;Acc:VGNC:30287]
ENSBTAG00000015796	0.5853786	0.009741	DNAJC5	Bos taurus DnaJ heat shock protein family (Hsp40) member C5 (DNAJC5), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_174533]
ENSBTAG00000050626	-5.476364135	0.009766	-	-
ENSBTAG00000019203	0.900131962	0.009887	S100A4	S100 calcium binding protein A4 [Source:VGNC Symbol;Acc:VGNC:34244]
ENSBTAG00000018172	0.820046394	0.009913	OGFOD3	2-oxoglutarate and iron dependent oxygenase domain containing 3 [Source:VGNC Symbol;Acc:VGNC:32410]
ENSBTAG00000023885	0.834574769	0.009916	ZNF79	zinc finger protein 79 [Source:VGNC Symbol;Acc:VGNC:37347]
ENSBTAG00000014238	0.708051245	0.009916	ATP6V1E1	ATPase H ⁺ transporting V1 subunit E1 [Source:VGNC Symbol;Acc:VGNC:26322]
ENSBTAG00000050249	0.657439916	0.009916	-	-
ENSBTAG00000010803	-1.588724639	0.009916	CHML	CHM like, Rab escort protein 2 [Source:VGNC Symbol;Acc:VGNC:27298]
ENSBTAG00000000133	1.216973278	0.009945	CD68	CD68 molecule [Source:VGNC Symbol;Acc:VGNC:27042]
ENSBTAG00000048335	3.453180911	0.009964	-	-

ENSBTAG00000002323	-0.634045434	0.010077	USP28	Bos taurus ubiquitin specific peptidase 28 (USP28), mRNA. [Source:RefSeq mRNA;Acc:NM_001192998]
ENSBTAG00000050091	-0.928516085	0.010098	GCNT4	glucosaminyl (N-acetyl) transferase 4, core 2 [Source:HGNC Symbol;Acc:HGNC:17973]
ENSBTAG00000051072	-4.918745408	0.010098	AQP4	Bos taurus aquaporin 4 (AQP4), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_181003]
ENSBTAG00000025320	-0.571121657	0.010126	AKAP1	A-kinase anchoring protein 1 [Source:VGNC Symbol;Acc:VGNC:25779]
novel.963	-3.102940519	0.010126	-	-
ENSBTAG00000000042	0.778415246	0.010126	PYCR1	Bos taurus pyrroline-5-carboxylate reductase 1 (PYCR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001014957]
ENSBTAG00000003001	0.75696981	0.010141	LAMTOR1	Bos taurus late endosomal/lysosomal adaptor, MAPK and MTOR activator 1 (LAMTOR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034769]
ENSBTAG00000030222	0.751207997	0.010231	L3MBTL2	L3MBTL2, polycomb repressive complex 1 subunit [Source:VGNC Symbol;Acc:VGNC:30763]
ENSBTAG00000025644	0.684488399	0.010246	CALM1	Bos taurus calmodulin 1 (CALM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001242572]
ENSBTAG00000012982	0.858306088	0.0103	PPCS	phosphopantothenoylcysteine synthetase [Source:VGNC Symbol;Acc:VGNC:33189]
novel.1268	1.039908614	0.010415	-	-
ENSBTAG00000011586	0.87688612	0.010421	HABP4	Bos taurus hyaluronan binding protein 4 (HABP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001081523]
ENSBTAG00000000704	0.616009649	0.010471	GUSB	Bos taurus glucuronidase beta (GUSB), mRNA. [Source:RefSeq mRNA;Acc:NM_001083436]
ENSBTAG00000001826	-0.758589902	0.010474	SASH1	SAM and SH3 domain containing 1 [Source:VGNC Symbol;Acc:VGNC:34293]
ENSBTAG00000014719	-0.838934443	0.010474	TMOD1	Bos taurus tropomodulin 1 (TMOD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001079640]

ENSBTAG00000019818	-0.93881762	0.010474	CASZ1	castor zinc finger 1 [Source:VGNC Symbol;Acc:VGNC:50113] Bos taurus glutamate-cysteine ligase catalytic subunit (GCLC), mRNA. [Source:RefSeq mRNA;Acc:NM_001083674]
ENSBTAG00000015571	1.201252038	0.010641	GCLC	
novel.346	-4.649789959	0.010809	-	-
ENSBTAG00000008897	1.292266657	0.010866	BIN2	bridging integrator 2 [Source:VGNC Symbol;Acc:VGNC:26498] dystrobrevin alpha [Source:VGNC Symbol;Acc:VGNC:28231]
ENSBTAG00000012307	-1.478134628	0.010866	DTNA	
ENSBTAG00000022084	0.585095997	0.01096	-	-
ENSBTAG00000012991	1.86122877	0.010986	PRUNE2	prune homolog 2 [Source:VGNC Symbol;Acc:VGNC:33429] prolyl 4-hydroxylase subunit beta [Source:VGNC Symbol;Acc:VGNC:32538]
ENSBTAG00000006045	0.61985662	0.011035	P4HB	neutrophil cytosolic factor 4 [Source:VGNC Symbol;Acc:VGNC:31913]
ENSBTAG00000007531	1.174958737	0.011035	NCF4	
novel.659	-4.648291726	0.011035	-	PF00069:Protein kinase domain PF00041:Fibronectin type III domain PF07679:Immunoglobulin I-set domain
ENSBTAG00000005009	0.631375639	0.011036	PRELID1	Bos taurus PRELI domain containing 1 (PRELID1), mRNA. [Source:RefSeq mRNA;Acc:NM_001038138]
ENSBTAG00000011011	-0.813681181	0.011091	SSH2	slingshot protein phosphatase 2 [Source:VGNC Symbol;Acc:VGNC:35313]
ENSBTAG00000045582	0.505168608	0.011094	ARPC5	actin related protein 2/3 complex subunit 5 [Source:VGNC Symbol;Acc:VGNC:26165]
ENSBTAG00000011509	-0.728282901	0.011123	SERAC1	serine active site containing 1 [Source:VGNC Symbol;Acc:VGNC:34460]
ENSBTAG00000004688	0.897631769	0.011123	DHCR24	24-dehydrocholesterol reductase [Source:VGNC Symbol;Acc:VGNC:28033]
ENSBTAG00000018093	-0.951668646	0.011157	KMT2A	lysine methyltransferase 2A [Source:VGNC Symbol;Acc:VGNC:30690]
ENSBTAG00000000898	0.911048157	0.011225	F2RL2	Bos taurus coagulation factor II thrombin receptor like 2 (F2RL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001038533]

ENSBTAG00000013152	0.864166522	0.011276	NIPSNAP1	nipsnap homolog 1 [Source:VGNC Symbol;Acc:VGNC:32086]
ENSBTAG00000010155	1.239553145	0.011377	-	regakine 1 [Source:NCBI gene;Acc:504773]
ENSBTAG00000003425	0.782371275	0.011441	MGME1	Bos taurus mitochondrial genome maintenance exonuclease 1 (MGME1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075245]
ENSBTAG00000026916	0.660649065	0.011596	PRR13	proline rich 13 [Source:VGNC Symbol;Acc:VGNC:33390]
ENSBTAG00000019060	-1.806371363	0.011641	CLDN11	Bos taurus claudin 11 (CLDN11), mRNA. [Source:RefSeq mRNA;Acc:NM_001035055]
ENSBTAG00000035844	-2.094925446	0.011641	HRASLS	Bos taurus HRAS like suppressor (HRASLS), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001314065]
ENSBTAG00000016644	-0.689932687	0.011641	LVRN	Bos taurus laeverin (LVRN), mRNA. [Source:RefSeq mRNA;Acc:NM_001206325]
ENSBTAG00000047808	2.515114147	0.011641	MOGAT3	monoacylglycerol O-acyltransferase 3 [Source:HGNC Symbol;Acc:HGNC:23249]
ENSBTAG00000027715	1.782554619	0.011641	-	-
ENSBTAG00000000480	0.930163357	0.011641	IFRD2	Bos taurus interferon related developmental regulator 2 (IFRD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001077012]
ENSBTAG00000030974	-3.740088529	0.011641	TUBA4A	tubulin alpha 4a [Source:VGNC Symbol;Acc:VGNC:49986]
ENSBTAG00000049766	0.681336691	0.011824	DUSP28	dual specificity phosphatase 28 [Source:NCBI gene;Acc:112446050]
ENSBTAG00000016242	-4.935947644	0.01192	DUOXA1	Bos taurus dual oxidase maturation factor 1 (DUOXA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099046]
ENSBTAG00000008004	1.160152581	0.01192	NCF2	neutrophil cytosolic factor 2 [Source:VGNC Symbol;Acc:VGNC:31912]
ENSBTAG00000020928	-3.829226487	0.012014	ADPRHL1	[Protein ADP-ribosylarginine] hydrolase-like protein 1 [Source:UniProtKB/Swiss-Prot;Acc:Q3ZBM1]
ENSBTAG00000002282	-0.450051709	0.012125	EIF1	Bos taurus eukaryotic translation initiation factor 1 (EIF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001014884]

ENSBTAG00000014228	1.561745365	0.012184	TFEC	Bos taurus transcription factor EC (TFEC), mRNA. [Source:RefSeq mRNA;Acc:NM_001083739]
ENSBTAG00000016465	0.799735617	0.012184	DHCR7	Bos taurus 7-dehydrocholesterol reductase (DHCR7), mRNA. [Source:RefSeq mRNA;Acc:NM_001014927]
ENSBTAG00000002261	-4.244377874	0.012184	LBX1	ladybird homeobox 1 [Source:VGNC Symbol;Acc:VGNC:30805]
ENSBTAG00000021942	0.972470516	0.012184	HPS6	Bos taurus HPS6, biogenesis of lysosomal organelles complex 2 subunit 3 (HPS6), mRNA. [Source:RefSeq mRNA;Acc:NM_001081586]
ENSBTAG00000038286	-2.110724495	0.012184	PPDPFL	Bos taurus pancreatic progenitor cell differentiation and proliferation factor like (PPDPFL), mRNA. [Source:RefSeq mRNA;Acc:NM_001109967]
ENSBTAG00000002101	0.763094289	0.012184	GDE1	Bos taurus glycerophosphodiester phosphodiesterase 1 (GDE1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034686]
ENSBTAG00000045478	-4.611143429	0.01239	bta-mir-2308	bta-mir-2308 [Source:miRBase;Acc:MI0011321]
ENSBTAG00000027569	-0.697509797	0.012407	APBB2	amyloid beta precursor protein binding family B member 2 [Source:VGNC Symbol;Acc:VGNC:26005]
ENSBTAG00000021862	-1.368042095	0.012513	SLC27A3	solute carrier family 27 member 3 [Source:VGNC Symbol;Acc:VGNC:34787]
ENSBTAG00000006305	-1.045848066	0.012513	AK1	Bos taurus adenylate kinase 1 (AK1), mRNA. [Source:RefSeq mRNA;Acc:NM_001013582]
ENSBTAG00000003536	-0.629387133	0.012517	6-Mar	membrane associated ring-CH-type finger 6 [Source:VGNC Symbol;Acc:VGNC:31241]
novel.635	1.401578246	0.012537	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000007338	1.297092431	0.012537	TYROBP	TYRO protein tyrosine kinase binding protein [Source:VGNC Symbol;Acc:VGNC:36552]
ENSBTAG00000012726	0.803099816	0.012537	PSMB5	proteasome subunit beta 5 [Source:VGNC Symbol;Acc:VGNC:33449]
ENSBTAG00000017549	-0.894669921	0.012537	KITLG	KIT ligand [Source:VGNC Symbol;Acc:VGNC:30619]

ENSBTAG00000005002	1.021030758	0.012731	GALE	UDP-galactose-4-epimerase [Source:VGNC Symbol;Acc:VGNC:29218]
ENSBTAG00000001235	1.123608386	0.012754	CD200R1L	Bos taurus CD200 receptor 1-like (CD200R1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001099374]
ENSBTAG000000016323	3.265803269	0.012898	SLC7A14	Bos taurus solute carrier family 7 member 14 (SLC7A14), mRNA. [Source:RefSeq mRNA;Acc:NM_001077992]
ENSBTAG00000005260	3.658254859	0.012914	SPP1	secreted phosphoprotein 1 [Source:VGNC Symbol;Acc:VGNC:35232]
ENSBTAG000000038617	-0.848613352	0.012914	SH3D21	Bos taurus SH3 domain containing 21 (SH3D21), mRNA. [Source:RefSeq mRNA;Acc:NM_001162534]
ENSBTAG00000005432	0.952146959	0.012914	CAPG	capping actin protein, gelsolin like [Source:VGNC Symbol;Acc:VGNC:26739]
ENSBTAG000000008920	-4.15515664	0.012914	ATP1B4	Bos taurus ATPase Na ⁺ /K ⁺ transporting family member beta 4 (ATP1B4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101919]
ENSBTAG000000014001	0.671645001	0.012914	MAP1A	microtubule associated protein 1A [Source:VGNC Symbol;Acc:VGNC:31177]
ENSBTAG000000051540	-2.021630267	0.012914	FNDC5	fibronectin type III domain containing 5 [Source:HGNC Symbol;Acc:HGNC:20240]
ENSBTAG000000014775	0.704142821	0.012941	GUK1	Bos taurus guanylate kinase 1 (GUK1), transcript variant 3, mRNA. [Source:RefSeq mRNA;Acc:NM_001159413]
ENSBTAG000000007090	-4.209377268	0.012993	MYH2	Bos taurus myosin heavy chain 2 (MYH2), mRNA. [Source:RefSeq mRNA;Acc:NM_001166227]
ENSBTAG000000005063	1.476905176	0.013021	THEM6	Bos taurus thioesterase superfamily member 6 (THEM6), mRNA. [Source:RefSeq mRNA;Acc:NM_001099375]
ENSBTAG000000003341	1.259882701	0.013044	DOK2	docking protein 2 [Source:VGNC Symbol;Acc:VGNC:28166]
ENSBTAG000000017869	0.683120953	0.013072	CAV1	Bos taurus caveolin 1 (CAV1), mRNA. [Source:RefSeq mRNA;Acc:NM_174004]
ENSBTAG000000046533	0.647678475	0.013072	RAB31	Bos taurus RAB31, member RAS oncogene family (RAB31), mRNA. [Source:RefSeq mRNA;Acc:NM_001076944]

ENSBTAG00000019780	0.768049201	0.013072	USP5	ubiquitin specific peptidase 5 [Source:VGNC Symbol;Acc:VGNC:36735]
ENSBTAG00000020954	-0.80587574	0.013106	TRIM7	tripartite motif containing 7 [Source:VGNC Symbol;Acc:VGNC:36351]
ENSBTAG00000006185	1.992326665	0.013158	SPC24	SPC24, NDC80 kinetochore complex component [Source:VGNC Symbol;Acc:VGNC:35195]
ENSBTAG00000020453	1.753283444	0.013213	CLEC5A	C-type lectin domain containing 5A [Source:VGNC Symbol;Acc:VGNC:27435]
ENSBTAG00000013761	-0.782756983	0.013238	STMN1	stathmin 1 [Source:NCBI gene;Acc:616317]
ENSBTAG00000017463	0.924723873	0.013238	RPS19BP1	Bos taurus ribosomal protein S19 binding protein 1 (RPS19BP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098916]
ENSBTAG00000009762	0.865757526	0.013238	BEAN1	brain expressed associated with NEDD4 1 [Source:VGNC Symbol;Acc:VGNC:55036]
ENSBTAG00000004279	0.452174928	0.01336	RHOA	Bos taurus ras homolog family member A (RHOA), mRNA. [Source:RefSeq mRNA;Acc:NM_176645]
ENSBTAG00000020233	-1.033034781	0.013447	CCDC186	coiled-coil domain containing 186 [Source:VGNC Symbol;Acc:VGNC:26881]
ENSBTAG00000008340	0.802689104	0.013447	ATOX1	antioxidant 1 copper chaperone [Source:VGNC Symbol;Acc:VGNC:26273]
ENSBTAG00000003971	1.376221133	0.013447	E2F1	Bos taurus E2F transcription factor 1 (E2F1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206079]
ENSBTAG00000014956	-2.899531664	0.013474	JSRP1	Bos taurus junctional sarcoplasmic reticulum protein 1 (JSRP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046031]
ENSBTAG00000022613	1.296847231	0.013517	CYCS	Bos taurus cytochrome c, somatic (CYCS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046061]
ENSBTAG00000021009	-4.353312575	0.013587	TRIM55	tripartite motif containing 55 [Source:VGNC Symbol;Acc:VGNC:36341]
ENSBTAG00000047293	-1.035724192	0.01369	NRIP1	nuclear receptor interacting protein 1 [Source:VGNC Symbol;Acc:VGNC:32263]

ENSBTAG00000000355	0.915047282	0.013731	OXLD1	Bos taurus oxidoreductase like domain containing 1 (OXLD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105635]
ENSBTAG00000023806	-3.484038899	0.013875	COBL	cordón-bleu WH2 repeat protein [Source:HGNC Symbol;Acc:HGNC:22199]
ENSBTAG00000013419	0.945687862	0.013875	HTATIP2	Bos taurus HIV-1 Tat interactive protein 2 (HTATIP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001040563]
ENSBTAG00000008008	1.108546965	0.013875	TLR2	Bos taurus toll like receptor 2 (TLR2), mRNA. [Source:RefSeq mRNA;Acc:NM_174197]
ENSBTAG00000015841	0.818099579	0.013954	CCDC115	Bos taurus coiled-coil domain containing 115 (CCDC115), mRNA. [Source:RefSeq mRNA;Acc:NM_001034444]
ENSBTAG00000027051	0.801903684	0.014057	PTAFR	platelet activating factor receptor [Source:VGNC Symbol;Acc:VGNC:33488]
ENSBTAG00000048067	1.104920515	0.014075	EPOP	elongin BC and polycomb repressive complex 2 associated protein [Source:VGNC Symbol;Acc:VGNC:28550]
ENSBTAG00000001120	-1.340900747	0.014164	CORO6	Bos taurus coronin 6 (CORO6), mRNA. [Source:RefSeq mRNA;Acc:NM_001102282]
ENSBTAG00000029906	-4.768578255	0.014166	bta-mir-133a-2	bta-mir-133a-2 [Source:miRBase;Acc:MI0009732]
ENSBTAG00000007331	-0.906271111	0.014273	PLOD2	Bos taurus procollagen-lysine,2-oxoglutarate 5-dioxygenase 2 (PLOD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101149]
ENSBTAG00000007079	1.025468504	0.014303	LCPI1	lymphocyte cytosolic protein 1 [Source:VGNC Symbol;Acc:VGNC:30817]
ENSBTAG00000050824	0.981634338	0.014459	HS6ST1	heparan sulfate 6-O-sulfotransferase 1 [Source:NCBI gene;Acc:518563]
ENSBTAG00000001728	-1.131925067	0.014563	IGSF10	Bos taurus immunoglobulin superfamily, member 10 (IGSF10), mRNA. [Source:RefSeq mRNA;Acc:NM_001206785]
ENSBTAG00000006999	-3.514368069	0.014563	RYR1	ryanodine receptor 1 [Source:VGNC Symbol;Acc:VGNC:34233]
ENSBTAG00000023384	1.33597154	0.014563	CBR1	Bos taurus carbonyl reductase 1 (CBR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034513]

novel.1324	1.109349513	0.014563	-	PF07716:Basic region leucine zipper PF06529:Vertebrate interleukin-3 regulated transcription factor
ENSBTAG00000047186	0.585082032	0.014563	NME2	Bos taurus non-metastatic cells 2, protein (NM23B) expressed in (NME2), mRNA. [Source:RefSeq mRNA;Acc:NM_001076376]
ENSBTAG00000034498	1.806705465	0.014604	LY6D	lymphocyte antigen 6 family member D [Source:VGNC Symbol;Acc:VGNC:31088]
novel.491	2.407157875	0.014619	-	-
ENSBTAG00000015815	1.241371854	0.014896	CFP	Bos taurus complement factor properdin (CFP), mRNA. [Source:RefSeq mRNA;Acc:NM_001076178]
ENSBTAG00000026344	-3.722172204	0.014999	MAFA	MAF bZIP transcription factor A [Source:VGNC Symbol;Acc:VGNC:31138]
ENSBTAG00000045746	1.390161472	0.015186	-	-
ENSBTAG00000021484	0.651491891	0.015211	TSPAN18	Bos taurus tetraspanin 18 (TSPAN18), mRNA. [Source:RefSeq mRNA;Acc:NM_001080920]
ENSBTAG00000006939	1.119953484	0.015259	FGD3	Bos taurus FYVE, RhoGEF and PH domain containing 3 (FGD3), mRNA. [Source:RefSeq mRNA;Acc:NM_001024527]
ENSBTAG00000049909	-3.701788616	0.015271	AGBL1	ATP/GTP binding protein like 1 [Source:HGNC Symbol;Acc:HGNC:26504]
ENSBTAG00000038849	-3.615789394	0.015271	-	-
ENSBTAG00000009580	0.63668456	0.015306	SH3BGRL3	Bos taurus SH3 domain binding glutamate rich protein like 3 (SH3BGRL3), mRNA. [Source:RefSeq mRNA;Acc:NM_001034763]
ENSBTAG00000048980	1.112065353	0.01532	-	Bos taurus C-C motif chemokine 23 (LOC508666), mRNA. [Source:RefSeq mRNA;Acc:NM_001244199]
ENSBTAG00000018223	0.977393783	0.015328	CHI3L1	Bos taurus chitinase 3 like 1 (CHI3L1), mRNA. [Source:RefSeq mRNA;Acc:NM_001080219]
novel.463	-0.819672868	0.0154	-	-
ENSBTAG00000037962	-0.666193203	0.015403	MAML2	mastermind like transcriptional coactivator 2 [Source:VGNC Symbol;Acc:VGNC:31159]

ENSBTAG00000010735	0.831791988	0.015611	HIGD2A	Bos taurus HIG1 hypoxia inducible domain family member 2A (HIGD2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001077861]
ENSBTAG00000026266	0.77618234	0.015611	MYL12B	myosin, light chain 12B, regulatory [Source:NCBI gene;Acc:614055]
ENSBTAG00000018366	1.155402308	0.015611	SLC15A3	solute carrier family 15 member 3 [Source:VGNC Symbol;Acc:VGNC:34680]
ENSBTAG00000005615	-0.634406298	0.015668	-	carcinoembryonic antigen related cell adhesion molecule 1 [Source:NCBI gene;Acc:404118]
ENSBTAG00000006823	-3.507876546	0.015892	CMYA5	Bos taurus cardiomyopathy associated 5 (CMYA5), mRNA. [Source:RefSeq mRNA;Acc:NM_001281903]
ENSBTAG00000025964	-0.918457729	0.015926	MAST4	microtubule associated serine/threonine kinase family member 4 [Source:NCBI gene;Acc:529061]
ENSBTAG00000009749	-1.380736637	0.015926	USP2	Bos taurus ubiquitin specific peptidase 2 (USP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046263]
ENSBTAG00000050967	0.951232387	0.016015	-	-
ENSBTAG00000004043	1.37157109	0.016015	-	Bos taurus Fc gamma 2 receptor (LOC407171), mRNA. [Source:RefSeq mRNA;Acc:NM_001001138]
ENSBTAG00000032777	0.731389368	0.01602	TOMM5	Bos taurus translocase of outer mitochondrial membrane 5 (TOMM5), mRNA. [Source:RefSeq mRNA;Acc:NM_001143740]
ENSBTAG00000008765	0.902603958	0.016021	PRADC1	Bos taurus protease associated domain containing 1 (PRADC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001100338]
ENSBTAG00000047942	0.823849238	0.016111	DESI1	desumoylating isopeptidase 1 [Source:VGNC Symbol;Acc:VGNC:28014]
ENSBTAG00000017542	0.748928293	0.016338	PPARD	Bos taurus peroxisome proliferator activated receptor delta (PPARD), mRNA. [Source:RefSeq mRNA;Acc:NM_001083636]
ENSBTAG00000000212	0.675466149	0.016429	NADK	NAD kinase [Source:VGNC Symbol;Acc:VGNC:31863]
ENSBTAG00000013366	-1.590342704	0.016485	NRIP3	Bos taurus nuclear receptor interacting protein 3 (NRIP3), mRNA. [Source:RefSeq mRNA;Acc:NM_001102218]

ENSBTAG00000014992	0.966802699	0.016485	GPR37L1	G protein-coupled receptor 37 like 1 [Source:VGNC Symbol;Acc:VGNC:29586]
ENSBTAG00000001792	0.823411957	0.016494	C7H19orf70	chromosome 7 C19orf70 homolog [Source:VGNC Symbol;Acc:VGNC:52730]
ENSBTAG00000004651	0.841924994	0.016511	NME1-2	non-metastatic cells 1, protein (NM23A) expressed in [Source:NCBI gene;Acc:404189]
ENSBTAG00000012565	-0.675941475	0.016511	PCNX1	pecanex 1 [Source:VGNC Symbol;Acc:VGNC:32638]
ENSBTAG00000012342	0.603074929	0.016511	LIMA1	Bos taurus LIM domain and actin binding 1 (LIMA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192754]
ENSBTAG00000009663	-0.655748691	0.016511	YBX3	Y-box binding protein 3 [Source:VGNC Symbol;Acc:VGNC:37018]
ENSBTAG00000000014	0.94145455	0.016511	TXN2	thioredoxin 2 [Source:VGNC Symbol;Acc:VGNC:36533]
ENSBTAG00000020547	0.67632929	0.016511	BCAP31	Bos taurus B cell receptor associated protein 31 (BCAP31), mRNA. [Source:RefSeq mRNA;Acc:NM_001014941]
ENSBTAG00000018013	0.752209325	0.016559	EMP3	Bos taurus epithelial membrane protein 3 (EMP3), mRNA. [Source:RefSeq mRNA;Acc:NM_001024562]
ENSBTAG00000016462	-0.711198094	0.016559	TCF4	Bos taurus transcription factor 4 (TCF4), mRNA. [Source:RefSeq mRNA;Acc:NM_001034621]
ENSBTAG00000020412	-0.661272517	0.016559	RAP2A	Bos taurus RAP2A, member of RAS oncogene family (RAP2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001192942]
ENSBTAG00000047059	0.939306822	0.016559	TIMM17A	translocase of inner mitochondrial membrane 17A [Source:VGNC Symbol;Acc:VGNC:49572]
ENSBTAG00000001174	0.975537652	0.016559	MRPL15	mitochondrial ribosomal protein L15 [Source:VGNC Symbol;Acc:VGNC:31619]
ENSBTAG00000014015	0.852352202	0.016799	PLA2G6	phospholipase A2 group VI [Source:VGNC Symbol;Acc:VGNC:32964]
ENSBTAG00000017060	1.214394406	0.016851	ITGB2	integrin subunit beta 2 [Source:VGNC Symbol;Acc:VGNC:30327]
ENSBTAG00000046282	-3.525662004	0.016851	VGLL2	vestigial like family member 2 [Source:VGNC Symbol;Acc:VGNC:36791]

ENSBTAG00000017801	0.776285416	0.016851	ATP6AP2	Bos taurus ATPase H ⁺ transporting accessory protein 2 (ATP6AP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001098022]
ENSBTAG00000054394	-1.022825083	0.017034	-	-
novel.761	0.739038666	0.017046	-	-
ENSBTAG00000017715	-1.111675326	0.0171	HOMER2	Bos taurus homer scaffold protein 2 (HOMER2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075467]
ENSBTAG00000009956	0.726301858	0.0171	CENPM	Bos taurus centromere protein M (CENPM), mRNA. [Source:RefSeq mRNA;Acc:NM_001038686]
ENSBTAG00000014659	-0.877503794	0.0171	NEMP1	nuclear envelope integral membrane protein 1 [Source:VGNC Symbol;Acc:VGNC:56223]
novel.150	2.213303062	0.017108	-	-
ENSBTAG00000006160	0.616519097	0.017202	SUOX	Bos taurus sulfite oxidase (SUOX), mRNA. [Source:RefSeq mRNA;Acc:NM_001034366]
ENSBTAG00000002633	0.782752561	0.017227	9-Sep	septin 9 [Source:VGNC Symbol;Acc:VGNC:34459]
ENSBTAG00000000393	-0.626063415	0.017227	SSPN	sarcospan [Source:VGNC Symbol;Acc:VGNC:35317]
ENSBTAG00000008931	0.864458066	0.017236	CREG1	Bos taurus cellular repressor of E1A stimulated genes 1 (CREG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075942]
ENSBTAG00000001829	1.02508571	0.017236	SLC17A9	solute carrier family 17 member 9 [Source:VGNC Symbol;Acc:VGNC:34704]
ENSBTAG00000016997	1.318734878	0.017236	-	sialic acid binding Ig like lectin 11 [Source:NCBI gene;Acc:511180]
ENSBTAG00000021097	0.94080144	0.017236	PELI3	Bos taurus pellino E3 ubiquitin protein ligase family member 3 (PELI3), mRNA. [Source:RefSeq mRNA;Acc:NM_001191486]
ENSBTAG00000001192	-0.750216932	0.017236	STX12	Bos taurus syntaxin 12 (STX12), mRNA. [Source:RefSeq mRNA;Acc:NM_001101053]
ENSBTAG00000030170	0.652110096	0.017236	JPT1	Jupiter microtubule associated homolog 1 [Source:VGNC Symbol;Acc:VGNC:55841]
ENSBTAG00000012687	-0.739958851	0.017377	INSR	insulin receptor [Source:VGNC Symbol;Acc:VGNC:30221]

ENSBTAG00000004776	0.875742416	0.017377	DUSP23	dual specificity phosphatase 23 [Source:VGNC Symbol;Acc:VGNC:28257]
ENSBTAG00000020350	1.221357659	0.017377	DUSP2	dual specificity phosphatase 2 [Source:VGNC Symbol;Acc:VGNC:28255]
ENSBTAG00000008728	-0.739547517	0.017377	MRTFB	Bos taurus myocardin related transcription factor B (MRTFB), mRNA. [Source:RefSeq mRNA;Acc:NM_001192293]
ENSBTAG00000018024	-0.693100655	0.017377	NR1D2	Bos taurus nuclear receptor subfamily 1 group D member 2 (NR1D2), mRNA. [Source:RefSeq mRNA;Acc:NM_001289793]
ENSBTAG00000000494	-1.063078779	0.017401	PDE4D	phosphodiesterase 4D [Source:VGNC Symbol;Acc:VGNC:32677]
ENSBTAG00000010584	0.631087673	0.017401	AP2S1	adaptor related protein complex 2 subunit sigma 1 [Source:VGNC Symbol;Acc:VGNC:25986]
ENSBTAG00000001283	-0.663204314	0.017401	RIC1	RIC1 homolog, RAB6A GEF complex partner 1 [Source:VGNC Symbol;Acc:VGNC:33959]
ENSBTAG00000019463	0.628648919	0.017401	SLC25A39	solute carrier family 25 member 39 [Source:VGNC Symbol;Acc:VGNC:34764]
ENSBTAG00000014333	0.645156898	0.017404	SLC10A3	Bos taurus solute carrier family 10 member 3 (SLC10A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001075165]
ENSBTAG00000019627	0.81494578	0.017406	THY1	Bos taurus Thy-1 cell surface antigen (THY1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034765]
ENSBTAG00000003112	0.656343624	0.017433	THUMPD3	Bos taurus THUMP domain containing 3 (THUMPD3), mRNA. [Source:RefSeq mRNA;Acc:NM_001038062]
ENSBTAG00000008665	-0.792754744	0.017451	DIXDC1	DIX domain containing 1 [Source:VGNC Symbol;Acc:VGNC:28077]
ENSBTAG00000019079	1.080731312	0.017451	PLCB2	phospholipase C beta 2 [Source:VGNC Symbol;Acc:VGNC:32981]
ENSBTAG00000012259	0.961452372	0.017451	PNPO	Bos taurus pyridoxamine 5'-phosphate oxidase (PNPO), mRNA. [Source:RefSeq mRNA;Acc:NM_001014907]
ENSBTAG00000013641	0.793094468	0.017535	BAG3	Bos taurus BCL2 associated athanogene 3 (BAG3), mRNA. [Source:RefSeq mRNA;Acc:NM_001082471]

ENSBTAG00000005096	0.851207434	0.017535	COX7A2	cytochrome c oxidase subunit 7A2 [Source:VGNC Symbol;Acc:VGNC:53788]
ENSBTAG00000010682	0.911947586	0.017581	DDR1	Bos taurus discoidin domain receptor tyrosine kinase 1 (DDR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076012]
ENSBTAG00000019327	-3.571433036	0.017581	NRAP	Bos taurus nebulin related anchoring protein (NRAP), mRNA. [Source:RefSeq mRNA;Acc:NM_001098072]
ENSBTAG00000001189	0.681465332	0.017581	APIB1	Bos taurus adaptor related protein complex 1 subunit beta 1 (APIB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001045938]
ENSBTAG00000008842	-3.646879501	0.017583	JPH1	Bos taurus junctophilin 1 (JPH1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192887]
ENSBTAG00000040028	-3.85360458	0.017583	OBSCN	Bos taurus obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF (OBSCN), mRNA. [Source:RefSeq mRNA;Acc:NM_001102196]
ENSBTAG00000020247	-0.943962649	0.017663	ADCYAP1R1	ADCYAP receptor type I [Source:VGNC Symbol;Acc:VGNC:25652]
ENSBTAG00000027444	-1.015190494	0.017666	SVIL	Bos taurus supervillin (SVIL), mRNA. [Source:RefSeq mRNA;Acc:NM_174190]
ENSBTAG00000011190	0.604759136	0.017729	FLNA	Bos taurus filamin A (FLNA), mRNA. [Source:RefSeq mRNA;Acc:NM_001206514]
ENSBTAG00000048876	-0.80106182	0.017861	FAM117B	family with sequence similarity 117 member B [Source:NCBI gene;Acc:614932]
ENSBTAG00000001564	-2.441748989	0.017917	PDE4DIP	phosphodiesterase 4D interacting protein [Source:VGNC Symbol;Acc:VGNC:55072]
ENSBTAG00000019585	-2.684972138	0.017926	MYOM1	Bos taurus myomesin 1 (MYOM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001191466]
ENSBTAG00000019343	0.883477467	0.018023	MDFI	MyoD family inhibitor [Source:VGNC Symbol;Acc:VGNC:31329]
ENSBTAG00000031647	1.57551533	0.01806	LRG1	Bos taurus leucine rich alpha-2-glycoprotein 1 (LRG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046177]

ENSBTAG00000011466	0.693963126	0.018142	NAXD	NAD(P)HX dehydratase [Source:VGNC Symbol;Acc:VGNC:53829]
ENSBTAG00000019804	1.128862759	0.018231	SNRNP25	Bos taurus small nuclear ribonucleoprotein U11/U12 subunit 25 (SNRNP25), mRNA. [Source:RefSeq mRNA;Acc:NM_001166612]
ENSBTAG00000016924	-1.571332697	0.018231	CAP2	cyclase associated actin cytoskeleton regulatory protein 2 [Source:VGNC Symbol;Acc:VGNC:26738]
ENSBTAG00000003600	-1.304375949	0.018284	CAPN8	Bos taurus calpain 8 (CAPN8), mRNA. [Source:RefSeq mRNA;Acc:NM_001081619]
ENSBTAG00000045808	2.768143185	0.018284	IL17REL	interleukin 17 receptor E like [Source:VGNC Symbol;Acc:VGNC:56210]
ENSBTAG00000034827	-0.906361271	0.018299	PDGFD	Bos taurus platelet derived growth factor D (PDGFD), mRNA. [Source:RefSeq mRNA;Acc:NM_001083706]
ENSBTAG00000007409	1.50051873	0.018299	MILR1	mast cell immunoglobulin like receptor 1 [Source:VGNC Symbol;Acc:VGNC:31476]
ENSBTAG00000033367	-0.902099235	0.018322	DDO	Bos taurus D-aspartate oxidase (DDO), mRNA. [Source:RefSeq mRNA;Acc:NM_173908]
ENSBTAG00000000648	-0.931276316	0.018334	ADAMTS5	ADAM metalloproteinase with thrombospondin type 1 motif 5 [Source:VGNC Symbol;Acc:VGNC:50085]
ENSBTAG00000015539	-0.722779229	0.018334	RAPGEF5	Rap guanine nucleotide exchange factor 5 [Source:VGNC Symbol;Acc:VGNC:33726]
ENSBTAG00000012059	1.130620891	0.018393	MVD	Bos taurus mevalonate diphosphate decarboxylase (MVD), mRNA. [Source:RefSeq mRNA;Acc:NM_001075424]
ENSBTAG00000017260	-1.101197086	0.01843	PDE3A	phosphodiesterase 3A [Source:VGNC Symbol;Acc:VGNC:54467]
ENSBTAG00000010191	0.728806654	0.01843	PAK1	Bos taurus p21 (RAC1) activated kinase 1 (PAK1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076898]
ENSBTAG00000045862	1.083211013	0.01843	FERMT3	Bos taurus fermitin family member 3 (FERMT3), mRNA. [Source:RefSeq mRNA;Acc:NM_001037606]
ENSBTAG00000000242	1.07112387	0.01868	-	-

ENSBTAG00000026779	1.587208477	0.018758	LYZ	Bos taurus lysozyme (LYZ), mRNA. [Source:RefSeq mRNA;Acc:NM_001078159]
ENSBTAG00000021829	0.893661299	0.018859	GM2A	Bos taurus GM2 ganglioside activator (GM2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001205547]
ENSBTAG00000014553	0.608438125	0.01891	ATP6V0D1	Bos taurus ATPase H ⁺ transporting V0 subunit d1 (ATP6V0D1), mRNA. [Source:RefSeq mRNA;Acc:NM_174505]
ENSBTAG00000019497	-0.997783885	0.019067	ILDR2	Bos taurus immunoglobulin like domain containing receptor 2 (ILDR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102073]
ENSBTAG00000004915	0.74098104	0.019113	PFN1	Bos taurus profilin 1 (PFN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001015592]
ENSBTAG00000048257	1.683187801	0.01913	-	-
ENSBTAG00000018473	5.557837065	0.01915	MARCO	macrophage receptor with collagenous structure [Source:VGNC Symbol;Acc:VGNC:31246]
ENSBTAG00000033299	-0.929098115	0.019191	IGFALS	insulin like growth factor binding protein acid labile subunit [Source:NCBI gene;Acc:532494]
ENSBTAG00000005240	-0.992300685	0.019191	ZNF605	zinc finger protein 605 [Source:VGNC Symbol;Acc:VGNC:37310]
ENSBTAG00000004905	2.630651725	0.019191	KRT19	keratin 19 [Source:VGNC Symbol;Acc:VGNC:30720]
ENSBTAG00000007739	0.691875156	0.019191	REX1BD	required for excision 1-B domain containing [Source:VGNC Symbol;Acc:VGNC:52875]
ENSBTAG00000000809	-1.250352974	0.019197	IRX1	iroquois homeobox 1 [Source:VGNC Symbol;Acc:VGNC:30286]
ENSBTAG00000000251	-0.504303809	0.019206	ALAD	Bos taurus aminolevulinate dehydratase (ALAD), mRNA. [Source:RefSeq mRNA;Acc:NM_001014895]
ENSBTAG00000016413	-2.858210609	0.019229	DUSP26	Bos taurus dual specificity phosphatase 26 (DUSP26), mRNA. [Source:RefSeq mRNA;Acc:NM_001076004]
ENSBTAG00000011547	-3.57001535	0.019275	KBTBD12	kelch repeat and BTB domain containing 12 [Source:VGNC Symbol;Acc:VGNC:30413]

ENSBTAG00000047520	1.086628505	0.019275	-	-
ENSBTAG00000033170	-1.095473351	0.019375	LRRC58	Bos taurus leucine rich repeat containing 58 (LRRC58), mRNA. [Source:RefSeq mRNA;Acc:NM_001206760]
ENSBTAG00000010849	-2.749581183	0.019375	ANKRD23	ankyrin repeat domain 23 [Source:VGNC Symbol;Acc:VGNC:25917]
ENSBTAG00000055017	1.471952479	0.019375	SCIMP	SLP adaptor and CSK interacting membrane protein [Source:NCBI gene;Acc:100848290]
ENSBTAG00000016218	1.246604465	0.019375	PTGES2	prostaglandin E synthase 2 [Source:VGNC Symbol;Acc:VGNC:33506]
ENSBTAG00000017366	-1.735955569	0.019375	GRB7	Bos taurus growth factor receptor bound protein 7 (GRB7), mRNA. [Source:RefSeq mRNA;Acc:NM_001046014]
ENSBTAG00000032092	0.788632644	0.019375	CDH11	Bos taurus cadherin 11 (CDH11), mRNA. [Source:RefSeq mRNA;Acc:NM_001081624]
ENSBTAG00000007901	1.742392731	0.019382	-	-
ENSBTAG00000030520	-1.010778431	0.019382	PROB1	proline rich basic protein 1 [Source:VGNC Symbol;Acc:VGNC:33357]
ENSBTAG00000000641	-1.025609152	0.019404	SKAP1	src kinase associated phosphoprotein 1 [Source:VGNC Symbol;Acc:VGNC:54484]
ENSBTAG00000011500	-2.268006924	0.01956	CASQ2	Bos taurus calsequestrin 2 (CASQ2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035374]
ENSBTAG00000001928	0.475122711	0.01956	PDIA6	Bos taurus protein disulfide isomerase family A member 6 (PDIA6), mRNA. [Source:RefSeq mRNA;Acc:NM_001206345]
novel.1329	-1.019617222	0.019587	-	-
ENSBTAG00000005950	-2.435084773	0.01983	GPR50	G protein-coupled receptor 50 [Source:VGNC Symbol;Acc:VGNC:29589]
ENSBTAG00000047815	2.794057837	0.019897	-	-
ENSBTAG00000003367	1.514960167	0.019953	-	-
ENSBTAG00000013955	0.786387702	0.019995	TRAPPC9	Bos taurus trafficking protein particle complex 9 (TRAPPC9), mRNA. [Source:RefSeq mRNA;Acc:NM_001037474]

ENSBTAG00000009188	0.711622865	0.019995	GART	phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase [Source:VGNC Symbol;Acc:VGNC:29255]
ENSBTAG00000010787	0.812663566	0.019995	RFC3	replication factor C subunit 3 [Source:VGNC Symbol;Acc:VGNC:33887]
ENSBTAG00000016253	0.537675661	0.020061	G6PC3	Bos taurus glucose-6-phosphatase catalytic subunit 3 (G6PC3), mRNA. [Source:RefSeq mRNA;Acc:NM_183364]
ENSBTAG00000002721	-0.586080661	0.020182	TUT4	Bos taurus terminal uridylyl transferase 4 (TUT4), mRNA. [Source:RefSeq mRNA;Acc:NM_001206930]
ENSBTAG00000017313	1.079782206	0.020207	ADA2	adenosine deaminase 2 [Source:VGNC Symbol;Acc:VGNC:54400]
ENSBTAG00000010321	0.618817348	0.020381	TTC1	Bos taurus tetratricopeptide repeat domain 1 (TTC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034217]
ENSBTAG00000008619	-1.038439061	0.020414	SAMD8	sterile alpha motif domain containing 8 [Source:VGNC Symbol;Acc:VGNC:34276]
ENSBTAG00000040398	-0.798184753	0.020507	KIAA1211	KIAA1211 [Source:HGNC Symbol;Acc:HGNC:29219]
ENSBTAG00000012504	1.152534013	0.020576	GAS2L1	growth arrest specific 2 like 1 [Source:VGNC Symbol;Acc:VGNC:29258]
ENSBTAG00000014455	-0.858237653	0.020673	PDZD2	PDZ domain containing 2 [Source:VGNC Symbol;Acc:VGNC:32725]
ENSBTAG00000001933	0.661649357	0.020703	PTPA	Bos taurus protein phosphatase 2 phosphatase activator (PTPA), mRNA. [Source:RefSeq mRNA;Acc:NM_001046173]
ENSBTAG00000052272	0.750488015	0.020715	COX8A	Cytochrome c oxidase subunit 8A, mitochondrial [Source:UniProtKB/Swiss-Prot;Acc:P14622]
ENSBTAG00000000698	-4.526086832	0.020814	MYO18B	myosin XVIIIIB [Source:VGNC Symbol;Acc:VGNC:31814]
ENSBTAG00000050227	-0.680090947	0.020814	-	-
ENSBTAG00000015969	0.825052052	0.02088	STK40	Bos taurus serine/threonine kinase 40 (STK40), mRNA. [Source:RefSeq mRNA;Acc:NM_001075727]
ENSBTAG00000012809	-0.971341627	0.020946	PHF24	PHD finger protein 24 [Source:VGNC Symbol;Acc:VGNC:32824]

ENSBTAG00000014003	-2.556814222	0.021103	MYF6	myogenic factor 6 [Source:VGNC Symbol;Acc:VGNC:31793]
ENSBTAG00000050297	-1.074467883	0.021108	-	-
ENSBTAG00000015554	-0.60099424	0.021108	TMF1	Bos taurus TATA element modulatory factor 1 (TMF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206260]
ENSBTAG00000032839	-0.870189234	0.021108	LRCH3	leucine rich repeats and calponin homology domain containing 3 [Source:VGNC Symbol;Acc:VGNC:30973]
ENSBTAG00000009428	-1.008684056	0.021108	GAN	Bos taurus gigaxonin (GAN), mRNA. [Source:RefSeq mRNA;Acc:NM_001099015]
ENSBTAG00000009145	-0.934982833	0.02111	SLC7A4	solute carrier family 7 member 4 [Source:VGNC Symbol;Acc:VGNC:34930]
ENSBTAG00000050712	0.729822409	0.02122	EHD1	EH domain containing 1 [Source:NCBI gene;Acc:511908]
ENSBTAG00000002404	0.536349256	0.02122	TMX2	thioredoxin related transmembrane protein 2 [Source:VGNC Symbol;Acc:VGNC:54897]
ENSBTAG00000007346	0.518596646	0.02122	COMMD4	COMM domain containing 4 [Source:VGNC Symbol;Acc:VGNC:27585]
ENSBTAG00000019428	1.122844947	0.02122	CCR1	Bos taurus chemokine (C-C motif) receptor 1 (CCR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077839]
ENSBTAG00000027684	0.940857147	0.021258	FOLR2	Bos taurus folate receptor 2 (fetal) (FOLR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075325]
ENSBTAG00000002931	-4.246491197	0.021292	BEST3	bestrophin 3 [Source:VGNC Symbol;Acc:VGNC:26473]
ENSBTAG00000018071	-2.98394693	0.021674	TMOD4	Bos taurus tropomodulin 4 (TMOD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001075215]
ENSBTAG00000022292	0.920287325	0.021711	TIMM8A	translocase of inner mitochondrial membrane 8A [Source:VGNC Symbol;Acc:VGNC:49578]
ENSBTAG00000010244	-0.958304753	0.021778	CLIC5	chloride intracellular channel 5 [Source:HGNC Symbol;Acc:HGNC:13517]
ENSBTAG00000018527	-0.733838748	0.021868	HDGFL3	Bos taurus HDGF like 3 (HDGFL3), mRNA. [Source:RefSeq mRNA;Acc:NM_001191368]

ENSBTAG00000000404	0.543223097	0.021896	NAXE	NAD(P)HX epimerase [Source:VGNC Symbol;Acc:VGNC:55632]
ENSBTAG00000021581	-1.479966852	0.021896	FHOD3	Bos taurus formin homology 2 domain containing 3 (FHOD3), mRNA. [Source:RefSeq mRNA;Acc:NM_001191215]
ENSBTAG00000016972	1.8407917	0.021975	RAB11FIP4	RAB11 family interacting protein 4 [Source:VGNC Symbol;Acc:VGNC:33619]
ENSBTAG00000030584	0.633622751	0.021975	SLC35A4	solute carrier family 35 member A4 [Source:VGNC Symbol;Acc:VGNC:34821]
ENSBTAG00000014143	-2.085018071	0.022111	ASB5	Bos taurus ankyrin repeat and SOCS box containing 5 (ASB5), mRNA. [Source:RefSeq mRNA;Acc:NM_001075744]
ENSBTAG00000016571	0.646304965	0.022223	FAM234A	family with sequence similarity 234 member A [Source:NCBI gene;Acc:507493]
novel.1288	1.829368373	0.022223	-	PF01352:KRAB box
ENSBTAG00000046512	-4.095384763	0.022241	XIRP1	Bos taurus xin actin binding repeat containing 1 (XIRP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001245928]
ENSBTAG00000007213	0.79540217	0.022241	-	-
ENSBTAG00000010018	-0.877124946	0.022241	ATP7A	ATPase copper transporting alpha [Source:VGNC Symbol;Acc:VGNC:26327]
ENSBTAG00000022169	-1.059981815	0.022241	PREX2	Bos taurus phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 2 (PREX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192526]
ENSBTAG00000019210	-3.580288453	0.022265	ADCY2	adenylate cyclase 2 [Source:VGNC Symbol;Acc:VGNC:25643]
ENSBTAG00000033523	-1.068484806	0.022284	-	-
ENSBTAG00000002311	0.957283033	0.022457	REEP6	Bos taurus receptor accessory protein 6 (REEP6), mRNA. [Source:RefSeq mRNA;Acc:NM_001038135]
ENSBTAG00000021242	0.764739173	0.022567	COQ7	coenzyme Q7, hydroxylase [Source:VGNC Symbol;Acc:VGNC:27615]
ENSBTAG00000005946	-1.783064674	0.022567	USP13	Bos taurus ubiquitin specific peptidase 13 (USP13), mRNA. [Source:RefSeq mRNA;Acc:NM_001191266]

ENSBTAG00000033983	0.704897246	0.022659	MAP2K1	Bos taurus mitogen-activated protein kinase kinase 1 (MAP2K1), mRNA. [Source:RefSeq mRNA;Acc:NM_001130752]
ENSBTAG00000035998	1.799340987	0.022771	CKB	creatine kinase B [Source:VGNC Symbol;Acc:VGNC:27384]
ENSBTAG00000027080	-1.038126129	0.022782	SLC8A3	solute carrier family 8 member A3 [Source:VGNC Symbol;Acc:VGNC:34937]
ENSBTAG00000025450	-0.515980401	0.022903	SYNE2	Bos taurus spectrin repeat containing nuclear envelope protein 2 (SYNE2), mRNA. [Source:RefSeq mRNA;Acc:NM_001206586]
ENSBTAG00000019569	0.719754644	0.022903	CD151	CD151 molecule [Source:VGNC Symbol;Acc:VGNC:53655]
ENSBTAG00000012393	3.185135192	0.02291	AGT	Bos taurus angiotensinogen (AGT), mRNA. [Source:RefSeq mRNA;Acc:NM_001114082]
ENSBTAG00000016021	0.646626033	0.022934	GAA	glucosidase alpha, acid [Source:VGNC Symbol;Acc:VGNC:29182]
ENSBTAG00000005339	-0.708862068	0.022942	VEGFA	Bos taurus vascular endothelial growth factor A (VEGFA), transcript variant 4, mRNA. [Source:RefSeq mRNA;Acc:NM_001316956]
ENSBTAG00000019179	1.488331525	0.023197	TSKS	Bos taurus testis specific serine kinase substrate (TSKS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046609]
ENSBTAG00000002062	-1.128173269	0.023276	TRPA1	transient receptor potential cation channel subfamily A member 1 [Source:VGNC Symbol;Acc:VGNC:36380]
ENSBTAG00000048756	-4.949073746	0.023276	-	-
ENSBTAG00000012365	-0.427309344	0.023304	ANP32A	Bos taurus acidic nuclear phosphoprotein 32 family member A (ANP32A), mRNA. [Source:RefSeq mRNA;Acc:NM_001195019]
ENSBTAG00000052912	1.17752212	0.02341	-	-
ENSBTAG00000046838	-3.800228419	0.023528	-	-
ENSBTAG00000009331	-0.630000506	0.023558	CPAMD8	C3 and PZP like, alpha-2-macroglobulin domain containing 8 [Source:VGNC Symbol;Acc:VGNC:27644]
ENSBTAG00000020800	-0.585649905	0.023766	BEND7	BEN domain containing 7 [Source:VGNC Symbol;Acc:VGNC:26470]

ENSBTAG0000000064	0.83071129	0.023786	FEN1	Bos taurus flap structure-specific endonuclease 1 (FEN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035113]
ENSBTAG00000003835	1.048733242	0.023802	BMP4	bone morphogenetic protein 4 [Source:VGNC Symbol;Acc:VGNC:26519]
ENSBTAG00000010802	1.319671026	0.023864	KCNK7	Bos taurus potassium two pore domain channel subfamily K member 7 (KCNK7), mRNA. [Source:RefSeq mRNA;Acc:NM_001192725]
ENSBTAG00000021709	1.167847723	0.023926	SPI1	Spi-1 proto-oncogene [Source:VGNC Symbol;Acc:VGNC:35213]
ENSBTAG00000016754	-2.071761497	0.023969	KLHL38	kelch like family member 38 [Source:VGNC Symbol;Acc:VGNC:30663]
ENSBTAG00000008635	0.577254871	0.024122	-	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 1 [Source:NCBI gene;Acc:282485]
ENSBTAG00000004770	-3.910376115	0.024136	SCN4A	sodium voltage-gated channel alpha subunit 4 [Source:VGNC Symbol;Acc:VGNC:34350]
ENSBTAG00000014599	0.868709445	0.024158	LRRC66	leucine rich repeat containing 66 [Source:VGNC Symbol;Acc:VGNC:31024]
ENSBTAG00000005847	-0.777723316	0.024158	ROCK2	Rho associated coiled-coil containing protein kinase 2 [Source:VGNC Symbol;Acc:VGNC:34082]
ENSBTAG00000019461	0.525152181	0.024158	NUMBL	Bos taurus NUMB like, endocytic adaptor protein (NUMBL), mRNA. [Source:RefSeq mRNA;Acc:NM_001076834]
ENSBTAG00000008868	-3.272611695	0.024158	CAPN3	calpain 3 [Source:VGNC Symbol;Acc:VGNC:26747]
ENSBTAG00000005678	0.786222398	0.0242	AACS	Bos taurus acetoacetyl-CoA synthetase (AACS), mRNA. [Source:RefSeq mRNA;Acc:NM_001163929]
ENSBTAG00000031441	0.690714366	0.0242	FXJD5	FXJD domain containing ion transport regulator 5 [Source:VGNC Symbol;Acc:VGNC:29158]
ENSBTAG00000037640	0.717266011	0.0242	PID1	Bos taurus phosphotyrosine interaction domain containing 1 (PID1), mRNA. [Source:RefSeq mRNA;Acc:NM_001079584]
novel.1101	-0.672361533	0.0242	-	-

ENSBTAG00000009679	-0.829918157	0.024223	PLEKHG1	Bos taurus pleckstrin homology and RhoGEF domain containing G1 (PLEKHG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205921]
ENSBTAG00000020050	1.028640687	0.024344	MLEC	malectin [Source:VGNC Symbol;Acc:VGNC:31496]
ENSBTAG00000046218	-0.908005482	0.024344	KLF11	Bos taurus Kruppel like factor 11 (KLF11), mRNA. [Source:RefSeq mRNA;Acc:NM_001190301]
ENSBTAG00000020080	-3.511314719	0.02452	MYBPC2	myosin binding protein C, fast type [Source:NCBI gene;Acc:112442206]
ENSBTAG00000004237	-1.365605496	0.02462	BTC	Bos taurus betacellulin (BTC), mRNA. [Source:RefSeq mRNA;Acc:NM_173896]
ENSBTAG00000008125	1.29996484	0.024745	KCNAB2	potassium voltage-gated channel subfamily A regulatory beta subunit 2 [Source:VGNC Symbol;Acc:VGNC:30428]
ENSBTAG00000006673	2.923187959	0.024745	TMEM179	transmembrane protein 179 [Source:VGNC Symbol;Acc:VGNC:36004]
ENSBTAG00000015214	-3.654175497	0.024745	CA3	Bos taurus carbonic anhydrase 3 (CA3), mRNA. [Source:RefSeq mRNA;Acc:NM_001034437]
ENSBTAG00000020968	0.745050551	0.024745	MPC2	Bos taurus mitochondrial pyruvate carrier 2 (MPC2), mRNA. [Source:RefSeq mRNA;Acc:NM_001193121]
ENSBTAG00000039935	1.418708177	0.024789	KCNC3	potassium voltage-gated channel subfamily C member 3 [Source:VGNC Symbol;Acc:VGNC:52201]
novel.1368	0.924308687	0.02482	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000047155	-3.313348262	0.024927	C28H10orf71	chromosome 28 C10orf71 homolog [Source:VGNC Symbol;Acc:VGNC:52696]
ENSBTAG00000006474	-0.905226416	0.025045	EPCAM	Bos taurus epithelial cell adhesion molecule (EPCAM), mRNA. [Source:RefSeq mRNA;Acc:NM_001035290]
ENSBTAG00000008429	-0.628593862	0.025279	LRP4	Bos taurus LDL receptor related protein 4 (LRP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001077843]
ENSBTAG00000016048	-1.093560236	0.025433	CPT1B	carnitine palmitoyltransferase 1B [Source:VGNC Symbol;Acc:VGNC:27677]

ENSBTAG00000008789	0.639637546	0.02556	HMG20B	Bos taurus high mobility group 20B (HMG20B), mRNA. [Source:RefSeq mRNA;Acc:NM_001038054]
ENSBTAG00000015563	0.896317348	0.025688	PDE12	Bos taurus phosphodiesterase 12 (PDE12), mRNA. [Source:RefSeq mRNA;Acc:NM_001076133]
ENSBTAG00000007428	-1.493387829	0.025688	CDKL5	cyclin dependent kinase like 5 [Source:VGNC Symbol;Acc:VGNC:56922]
ENSBTAG00000009872	0.667816933	0.025818	SPHK2	sphingosine kinase 2 [Source:VGNC Symbol;Acc:VGNC:35211]
novel.1107	-1.391149665	0.025835	-	-
ENSBTAG00000007315	0.655875043	0.025835	LARS2	leucyl-tRNA synthetase 2, mitochondrial [Source:VGNC Symbol;Acc:VGNC:30796]
ENSBTAG00000005370	-0.807768435	0.025835	TMTC1	Bos taurus transmembrane and tetratricopeptide repeat containing 1 (TMTC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192761]
ENSBTAG00000000417	0.966575781	0.025835	MRPL12	Bos taurus mitochondrial ribosomal protein L12 (MRPL12), mRNA. [Source:RefSeq mRNA;Acc:NM_201606]
ENSBTAG00000007823	2.248829413	0.025835	TG	Bos taurus thyroglobulin (TG), mRNA. [Source:RefSeq mRNA;Acc:NM_173883]
ENSBTAG00000001009	0.834104276	0.025971	HCLS1	Bos taurus hematopoietic cell-specific Lyn substrate 1 (HCLS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035057]
ENSBTAG00000001344	-2.651477555	0.026094	METTL21E	Bos taurus RIKEN cDNA 4832428D23-like (METTL21E), mRNA. [Source:RefSeq mRNA;Acc:NM_001014922]
ENSBTAG00000000274	0.556986821	0.026119	YKT6	YKT6 v-SNARE homolog [Source:VGNC Symbol;Acc:VGNC:37030]
ENSBTAG000000021992	-2.745381503	0.026131	CAVIN4	Bos taurus caveolae associated protein 4 (CAVIN4), mRNA. [Source:RefSeq mRNA;Acc:NM_001103264]
ENSBTAG00000007268	0.871553164	0.026185	F13A1	Bos taurus coagulation factor XIII A chain (F13A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001167894]

ENSBTAG00000020070	0.608850821	0.026185	ABCC3	Bos taurus ATP binding cassette subfamily C member 3 (ABCC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192756]
ENSBTAG00000018437	-0.866684516	0.026388	SMC5	structural maintenance of chromosomes 5 [Source:VGNC Symbol;Acc:VGNC:35002]
ENSBTAG00000017299	0.62735133	0.026388	KLC1	Bos taurus kinesin light chain 1 (KLC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098915]
ENSBTAG00000014486	1.379640249	0.026488	ATP12A	ATPase H ⁺ /K ⁺ transporting non-gastric alpha2 subunit [Source:VGNC Symbol;Acc:VGNC:26276] Bos taurus methylenetetrahydrofolate dehydrogenase, cyclohydrolase and formyltetrahydrofolate synthetase 1 (MTHFD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001083477]
ENSBTAG00000009641	0.727389465	0.026614	MTHFD1	
ENSBTAG00000024578	-1.12495546	0.026903	-	-
ENSBTAG00000000804	-0.892586721	0.026988	MOB3B	Bos taurus MOB kinase activator 3B (MOB3B), mRNA. [Source:RefSeq mRNA;Acc:NM_001046491]
ENSBTAG00000052706	1.839471599	0.026988	-	-
ENSBTAG00000014540	-3.763356105	0.026988	PERM1	Bos taurus PPARGC1 and ESRR induced regulator, muscle 1 (PERM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001098048]
ENSBTAG00000006607	-0.621472607	0.026988	CCNG1	Bos taurus cyclin G1 (CCNG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001013364]
ENSBTAG00000011515	0.893283805	0.027058	SELL	selectin L [Source:NCBI gene;Acc:281485]
ENSBTAG00000008396	0.966211706	0.027065	MRPL54	Bos taurus mitochondrial ribosomal protein L54 (MRPL54), mRNA. [Source:RefSeq mRNA;Acc:NM_001035105]
ENSBTAG00000009472	0.560277705	0.027087	C4H7orf25	Bos taurus chromosome 4 C7orf25 homolog (C4H7orf25), mRNA. [Source:RefSeq mRNA;Acc:NM_001076140]
ENSBTAG00000049190	-7.54226906	0.027094	-	-
ENSBTAG00000022893	2.088771274	0.027099	-	-
ENSBTAG00000001739	-0.905817316	0.027243	CDH20	cadherin 20 [Source:VGNC Symbol;Acc:VGNC:27099]

ENSBTAG00000011895	0.893048741	0.027327	PANK3	Bos taurus pantothenate kinase 3 (PANK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001075463]
ENSBTAG00000014536	1.007050032	0.027387	SFXN1	sideroflexin 1 [Source:VGNC Symbol;Acc:VGNC:34530]
ENSBTAG00000011866	0.5731037	0.027456	PCBD1	pterin-4 alpha-carbinolamine dehydratase 1 [Source:VGNC Symbol;Acc:VGNC:32612] Bos taurus major histocompatibility complex, class I (LOC512672), mRNA. [Source:RefSeq mRNA;Acc:NM_001076841]
ENSBTAG00000038619	-0.676901519	0.027456	-	-
ENSBTAG00000053678	-3.398858492	0.0275	-	-
novel.665	1.041387091	0.0275	-	-
ENSBTAG00000046073	-0.821972033	0.027543	TMEM240	Bos taurus transmembrane protein 240 (TMEM240), mRNA. [Source:RefSeq mRNA;Acc:NM_001206963]
ENSBTAG00000001420	0.600503087	0.027549	ABHD12	Bos taurus abhydrolase domain containing 12 (ABHD12), mRNA. [Source:RefSeq mRNA;Acc:NM_001078116]
ENSBTAG00000000363	-0.81860266	0.027584	BDP1	B double prime 1, subunit of RNA polymerase III transcription initiation factor IIIB [Source:VGNC Symbol;Acc:VGNC:26462]
ENSBTAG00000014878	-1.036798258	0.027652	COX7A1	cytochrome c oxidase subunit 7A1 [Source:VGNC Symbol;Acc:VGNC:27639]
ENSBTAG00000012185	2.124133998	0.027671	CLEC4E	C-type lectin domain family 4 member E [Source:VGNC Symbol;Acc:VGNC:27432]
ENSBTAG00000006907	-4.038587334	0.027671	NEB	nebulin [Source:VGNC Symbol;Acc:VGNC:31977]
ENSBTAG00000019280	1.028988965	0.02777	CRYBB1	Bos taurus crystallin beta B1 (CRYBB1), mRNA. [Source:RefSeq mRNA;Acc:NM_174526]
ENSBTAG00000017871	0.486200658	0.027856	GNA12	Bos taurus G protein subunit alpha 12 (GNA12), mRNA. [Source:RefSeq mRNA;Acc:NM_001192401]
ENSBTAG00000007836	0.621412488	0.027897	PPA1	Bos taurus pyrophosphatase (inorganic) 1 (PPA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075118]
ENSBTAG00000000833	0.636214418	0.027898	TAX1BP3	Bos taurus Tax1 binding protein 3 (TAX1BP3), mRNA. [Source:RefSeq mRNA;Acc:NM_001034474]

novel.903	1.472149413	0.027898	-	-
ENSBTAG00000005033	-0.979853796	0.027914	FAM57B	Bos taurus family with sequence similarity 57 member B (FAM57B), mRNA. [Source:RefSeq mRNA;Acc:NM_001105465]
ENSBTAG00000026199	0.623904235	0.027914	ACTB	Bos taurus actin beta (ACTB), mRNA. [Source:RefSeq mRNA;Acc:NM_173979]
ENSBTAG00000054384	-1.133336178	0.027914	-	-
ENSBTAG00000007828	1.26702363	0.027914	SLA	Bos taurus Src like adaptor (SLA), mRNA. [Source:RefSeq mRNA;Acc:NM_001024533]
ENSBTAG00000003495	-0.845391441	0.028029	KDM7A	lysine demethylase 7A [Source:VGNC Symbol;Acc:VGNC:30533]
ENSBTAG00000005222	-2.44705584	0.028309	FAM221B	family with sequence similarity 221 member B [Source:VGNC Symbol;Acc:VGNC:28800]
ENSBTAG00000008557	0.725852863	0.028331	-	-
ENSBTAG00000000074	-0.813187918	0.028331	NFIA	Bos taurus nuclear factor I A (NFIA), mRNA. [Source:RefSeq mRNA;Acc:NM_001038209]
ENSBTAG00000010082	-0.452469172	0.028331	COL15A1	collagen type XV alpha 1 chain [Source:VGNC Symbol;Acc:VGNC:27556]
novel.339	0.942478398	0.028331	-	-
ENSBTAG00000046037	0.738838779	0.028331	SLC25A5	solute carrier family 25 member 5 [Source:VGNC Symbol;Acc:VGNC:49966]
ENSBTAG00000000279	1.122941756	0.028331	RAB26	RAB26, member RAS oncogene family [Source:VGNC Symbol;Acc:VGNC:33633]
ENSBTAG00000012771	0.715051043	0.028331	CSF1R	Bos taurus colony stimulating factor 1 receptor (CSF1R), mRNA. [Source:RefSeq mRNA;Acc:NM_001075403]
ENSBTAG00000006396	0.921924949	0.028431	GPI	Bos taurus glucose-6-phosphate isomerase (GPI), mRNA. [Source:RefSeq mRNA;Acc:NM_001040471]
ENSBTAG00000018747	1.276821188	0.028475	PRKAA2	Bos taurus protein kinase AMP-activated catalytic subunit alpha 2 (PRKAA2), mRNA. [Source:RefSeq mRNA;Acc:NM_001205605]
novel.354	-3.1499583	0.0285	-	-

ENSBTAG00000014991	-0.488443583	0.028546	PARD3	par-3 family cell polarity regulator [Source:VGNC Symbol;Acc:VGNC:32582]
ENSBTAG00000012007	-0.78438639	0.028546	SOCS2	Bos taurus suppressor of cytokine signaling 2 (SOCS2), mRNA. [Source:RefSeq mRNA;Acc:NM_177523]
ENSBTAG00000003975	0.561833401	0.028546	LMAN2L	Bos taurus lectin, mannose binding 2 like (LMAN2L), mRNA. [Source:RefSeq mRNA;Acc:NM_001014953]
ENSBTAG00000009696	-3.8807986	0.028546	ACTN2	Bos taurus actinin alpha 2 (ACTN2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034635]
ENSBTAG00000009948	-0.675329853	0.028546	TRIM25	Bos taurus tripartite motif containing 25 (TRIM25), mRNA. [Source:RefSeq mRNA;Acc:NM_001100336]
ENSBTAG00000005968	-0.960822445	0.028737	TLL1	Bos taurus tolloid like 1 (TLL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001193114]
ENSBTAG00000021922	0.61201621	0.02888	SMAP2	Bos taurus small ArfGAP2 (SMAP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075670]
novel.7	-1.338784333	0.028962	-	-
ENSBTAG00000021934	1.076749839	0.029314	RETSAT	Bos taurus retinol saturase (RETSAT), mRNA. [Source:RefSeq mRNA;Acc:NM_001102279]
ENSBTAG00000002157	-3.566618114	0.029386	LMOD2	Bos taurus leiomodrin 2 (LMOD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105387]
ENSBTAG00000054404	0.987512394	0.029445	SNN	stannin [Source:NCBI gene;Acc:615361]
ENSBTAG00000020776	0.77403934	0.029492	POLR2E	RNA polymerase II subunit E [Source:VGNC Symbol;Acc:VGNC:33139]
ENSBTAG00000012852	-0.712763611	0.029495	DICER1	Bos taurus dicer 1, ribonuclease III (DICER1), mRNA. [Source:RefSeq mRNA;Acc:NM_203359]
ENSBTAG00000014931	0.704696487	0.029564	MLF2	myeloid leukemia factor 2 [Source:HGNC Symbol;Acc:HGNC:7126]
ENSBTAG00000052248	-4.409310093	0.029564	-	-
novel.708	-2.278307042	0.029625	-	PF00665:Integrase core domain PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)

ENSBTAG00000002574	-3.331661357	0.029694	MYOZ2	Bos taurus myozenin 2 (MYOZ2), mRNA. [Source:RefSeq mRNA;Acc:NM_001015676]
ENSBTAG00000007718	-0.672067451	0.029855	TGIF1	Bos taurus TGFB induced factor homeobox 1 (TGIF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001128499]
ENSBTAG00000021396	-0.636977771	0.029903	HEG1	heart development protein with EGF like domains 1 [Source:VGNC Symbol;Acc:VGNC:29803]
ENSBTAG00000014088	-0.867827441	0.030044	MBNL3	muscleblind like splicing regulator 3 [Source:VGNC Symbol;Acc:VGNC:31285]
ENSBTAG00000011832	0.978056019	0.030056	ALDH18A1	Bos taurus aldehyde dehydrogenase 18 family member A1 (ALDH18A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046181]
ENSBTAG00000003938	-1.776956289	0.030104	FNDC1	fibronectin type III domain containing 1 [Source:NCBI gene;Acc:100850256]
ENSBTAG00000002238	0.501810828	0.030146	ARL2	Bos taurus ADP ribosylation factor like GTPase 2 (ARL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001038079]
ENSBTAG00000050239	1.244532039	0.030192	-	caspase 1 [Source:NCBI gene;Acc:514214]
ENSBTAG00000014267	-0.724468999	0.030192	ZCCHC14	zinc finger CCHC-type containing 14 [Source:VGNC Symbol;Acc:VGNC:37118]
ENSBTAG00000014840	0.699834881	0.030214	MTX1	metaxin 1 [Source:VGNC Symbol;Acc:VGNC:55630]
ENSBTAG00000012295	0.906326307	0.030224	NKD1	naked cuticle homolog 1 [Source:VGNC Symbol;Acc:VGNC:32093]
ENSBTAG00000013632	1.849536234	0.030417	GRM4	glutamate metabotropic receptor 4 [Source:VGNC Symbol;Acc:VGNC:53975]
ENSBTAG00000019658	-2.995924416	0.030427	ASB16	ankyrin repeat and SOCS box containing 16 [Source:VGNC Symbol;Acc:VGNC:26193]
ENSBTAG00000012674	-0.739458084	0.030427	CNKSR3	Bos taurus CNKSR family member 3 (CNKSR3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192112]
ENSBTAG00000004383	-0.814532509	0.030427	FNBP1L	formin binding protein 1 like [Source:VGNC Symbol;Acc:VGNC:29060]
ENSBTAG00000018463	0.570723689	0.030563	VIM	Bos taurus vimentin (VIM), mRNA. [Source:RefSeq mRNA;Acc:NM_173969]

ENSBTAG00000019686	0.970405674	0.030611	NCKAP1L	Bos taurus NCK associated protein 1 like (NCKAP1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001143876]
ENSBTAG00000009387	-3.796849916	0.030647	MYOM2	Bos taurus myomesin 2 (MYOM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001038140]
ENSBTAG00000004367	-0.923611042	0.030659	COQ10A	Bos taurus coenzyme Q10A (COQ10A), mRNA. [Source:RefSeq mRNA;Acc:NM_001076130]
ENSBTAG00000003713	0.961096214	0.030659	SSSCA1	Sjogren syndrome/scleroderma autoantigen 1 [Source:HGNC Symbol;Acc:HGNC:11328]
ENSBTAG00000010693	-0.599880901	0.030871	LMO7	LIM domain 7 [Source:VGNC Symbol;Acc:VGNC:30937]
ENSBTAG00000048982	-0.715563015	0.031195	-	-
ENSBTAG00000015926	-1.224505485	0.031233	ABLIM2	actin binding LIM protein family member 2 [Source:VGNC Symbol;Acc:VGNC:25508]
ENSBTAG00000007732	-3.307197334	0.031233	ARPP21	Bos taurus cAMP regulated phosphoprotein 21 (ARPP21), mRNA. [Source:RefSeq mRNA;Acc:NM_001076950]
ENSBTAG00000046301	-0.681722842	0.031245	ZNF445	Bos taurus zinc finger protein 445 (ZNF445), mRNA. [Source:RefSeq mRNA;Acc:NM_001205819]
ENSBTAG00000009482	-0.763879864	0.031245	AFF4	AF4/FMR2 family member 4 [Source:VGNC Symbol;Acc:VGNC:25712]
ENSBTAG00000040350	-0.867201898	0.031245	XIAP	X-linked inhibitor of apoptosis [Source:NCBI gene;Acc:281647]
ENSBTAG00000002575	0.57082188	0.031314	SSU72	Bos taurus SSU72 homolog, RNA polymerase II CTD phosphatase (SSU72), mRNA. [Source:RefSeq mRNA;Acc:NM_001076349]
ENSBTAG00000025136	-3.573212186	0.03132	MYOZ3	Bos taurus myozenin 3 (MYOZ3), mRNA. [Source:RefSeq mRNA;Acc:NM_001078039]
ENSBTAG00000012082	1.283361991	0.031364	TNFRSF12A	Bos taurus TNF receptor superfamily member 12A (TNFRSF12A), transcript variant 2, mRNA. [Source:RefSeq mRNA;Acc:NM_001206328]
ENSBTAG00000020433	1.310020786	0.031364	NLRP1	NLR family pyrin domain containing 1 [Source:VGNC Symbol;Acc:VGNC:32115]

ENSBTAG00000003955	-0.880294573	0.031364	MYO7A	myosin VIIA [Source:VGNC Symbol;Acc:VGNC:31830]
ENSBTAG00000044185	-1.622743555	0.031364	SOX6	Bos taurus SRY-box 6 (SOX6), mRNA. [Source:RefSeq mRNA;Acc:NM_001191418]
ENSBTAG00000024341	-0.863162032	0.031364	HOXA6	homeobox A6 [Source:VGNC Symbol;Acc:VGNC:29914]
ENSBTAG00000008801	0.915978125	0.031364	ATPAF2	ATP synthase mitochondrial F1 complex assembly factor 2 [Source:VGNC Symbol;Acc:VGNC:26333]
novel.36	-0.789780008	0.03162	-	-
ENSBTAG00000038132	-1.304115977	0.031693	AIFM3	apoptosis inducing factor, mitochondria associated 3 [Source:VGNC Symbol;Acc:VGNC:25763]
ENSBTAG00000011815	0.750346376	0.031693	SMG9	Bos taurus SMG9, nonsense mediated mRNA decay factor (SMG9), mRNA. [Source:RefSeq mRNA;Acc:NM_001046559]
ENSBTAG00000033298	0.838895293	0.031733	-	LYR motif-containing protein 9 [Source:UniProtKB/Swiss-Prot;Acc:A5D7J1]
ENSBTAG00000000260	0.606577274	0.031774	ZNRF2	Bos taurus zinc and ring finger 2 (ZNRF2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105443]
novel.780	0.546093952	0.031774	-	-
ENSBTAG00000013038	0.545516559	0.031848	UBE2L3	ubiquitin conjugating enzyme E2 L3 [Source:VGNC Symbol;Acc:VGNC:53927]
ENSBTAG00000053557	3.418745849	0.031911	DEFB4A	defensin, beta 4A [Source:NCBI gene;Acc:286836]
ENSBTAG00000012397	0.673145914	0.031911	DCK	Bos taurus deoxycytidine kinase (DCK), mRNA. [Source:RefSeq mRNA;Acc:NM_001034573]
ENSBTAG00000003256	0.732897749	0.031911	TOMM34	Bos taurus translocase of outer mitochondrial membrane 34 (TOMM34), mRNA. [Source:RefSeq mRNA;Acc:NM_001193009]
ENSBTAG00000043581	0.692198017	0.031911	TXNRD2	thioredoxin reductase 2 [Source:VGNC Symbol;Acc:VGNC:36546]
ENSBTAG00000012705	0.823309967	0.03196	DEGS1	Bos taurus delta 4-desaturase, sphingolipid 1 (DEGS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034289]

ENSBTAG00000010954	-4.09195331	0.032005	ART3	Bos taurus ADP-ribosyltransferase 3 (ART3), mRNA. [Source:RefSeq mRNA;Acc:NM_001040496]
ENSBTAG00000051765	0.779835153	0.032289	-	-
ENSBTAG00000055158	-0.851005385	0.032332	TP53INP1	Bos taurus tumor protein p53 inducible nuclear protein 1 (TP53INP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205423]
ENSBTAG00000020735	-0.80697837	0.032332	SMG1	Bos taurus SMG1, nonsense mediated mRNA decay associated PI3K related kinase (SMG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205915]
ENSBTAG00000014885	-2.963140842	0.032465	MYOM3	myomesin 3 [Source:VGNC Symbol;Acc:VGNC:31839]
ENSBTAG00000052510	-1.354534732	0.032657	CCL26	C-C motif chemokine ligand 26 [Source:NCBI gene;Acc:508387]
ENSBTAG00000000707	1.794658618	0.032665	WISP1	WNT1 inducible signaling pathway protein 1 [Source:VGNC Symbol;Acc:VGNC:36944]
ENSBTAG00000007841	0.838695914	0.032665	WTIP	Bos taurus Wilms tumor 1 interacting protein (WTIP), mRNA. [Source:RefSeq mRNA;Acc:NM_001205562]
ENSBTAG00000010846	-0.624609671	0.03296	CNNM3	cyclin and CBS domain divalent metal cation transport mediator 3 [Source:VGNC Symbol;Acc:VGNC:27512]
ENSBTAG00000021318	1.316378086	0.033046	SCAMP5	Bos taurus secretory carrier membrane protein 5 (SCAMP5), mRNA. [Source:RefSeq mRNA;Acc:NM_001166565]
ENSBTAG00000055143	-0.755360268	0.033069	-	-
ENSBTAG00000000354	2.286522146	0.033113	PDE6G	phosphodiesterase 6G [Source:VGNC Symbol;Acc:VGNC:32683]
ENSBTAG00000011761	-0.71113635	0.033152	LRP6	LDL receptor related protein 6 [Source:VGNC Symbol;Acc:VGNC:30993]
ENSBTAG00000013036	1.273672951	0.03334	YDJC	YdjC chitooligosaccharide deacetylase homolog [Source:VGNC Symbol;Acc:VGNC:37019]
ENSBTAG00000009051	0.839952965	0.033348	MMP19	Bos taurus matrix metalloproteinase 19 (MMP19), mRNA. [Source:RefSeq mRNA;Acc:NM_001075983]
ENSBTAG00000003512	-2.21229684	0.033391	MYH7B	myosin heavy chain 7B [Source:VGNC Symbol;Acc:VGNC:50024]

ENSBTAG00000015434	0.591416367	0.033422	DSTN	destrin, actin depolymerizing factor [Source:VGNC Symbol;Acc:VGNC:28226]
ENSBTAG00000051744	-4.737448953	0.033422	-	-
ENSBTAG00000007239	-1.213203068	0.033434	TNFAIP6	TNF alpha induced protein 6 [Source:VGNC Symbol;Acc:VGNC:36156]
ENSBTAG00000025617	0.673770606	0.033434	RPS4Y1	Bos taurus ribosomal protein S4, Y-linked 1 (RPS4Y1), mRNA. [Source:RefSeq mRNA;Acc:NM_001082422]
ENSBTAG00000002086	-0.52041407	0.033487	PRPF4B	Bos taurus pre-mRNA processing factor 4B (PRPF4B), mRNA. [Source:RefSeq mRNA;Acc:NM_001075557]
ENSBTAG00000014547	-3.53689472	0.033499	PGAM2	Bos taurus phosphoglycerate mutase 2 (PGAM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001038111]
ENSBTAG00000018707	-3.534847035	0.033528	LDB3	Bos taurus LIM domain binding 3 (LDB3), mRNA. [Source:RefSeq mRNA;Acc:NM_001035416]
ENSBTAG00000048664	0.637633477	0.033541	CDK14	Bos taurus cyclin-dependent kinase 14 (CDK14), mRNA. [Source:RefSeq mRNA;Acc:NM_001206776]
ENSBTAG00000018775	0.804588615	0.033757	TPX2	Bos taurus TPX2, microtubule nucleation factor (TPX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001098898]
ENSBTAG00000017143	0.507338971	0.0338	PDIA4	Bos taurus protein disulfide isomerase family A member 4 (PDIA4), mRNA. [Source:RefSeq mRNA;Acc:NM_001045879]
ENSBTAG00000045954	-1.422248783	0.033823	LRRC14B	leucine rich repeat containing 14B [Source:VGNC Symbol;Acc:VGNC:31000]
ENSBTAG00000036260	0.992416752	0.033901	LPXN	Bos taurus leupaxin (LPXN), mRNA. [Source:RefSeq mRNA;Acc:NM_001025082]
ENSBTAG00000009773	0.768855402	0.034041	KREMEN1	kringle containing transmembrane protein 1 [Source:VGNC Symbol;Acc:VGNC:53911]
ENSBTAG00000015848	-1.280419556	0.034097	PHKA1	phosphorylase kinase regulatory subunit alpha 1 [Source:VGNC Symbol;Acc:VGNC:32830]
ENSBTAG00000022013	0.681560435	0.034097	CBR4	Bos taurus carbonyl reductase 4 (CBR4), mRNA. [Source:RefSeq mRNA;Acc:NM_001083717]

ENSBTAG0000002866	0.50887696	0.034097	RPIA	Bos taurus ribose 5-phosphate isomerase A (RPIA), mRNA. [Source:RefSeq mRNA;Acc:NM_001035433]
ENSBTAG00000031851	0.913872983	0.034097	SELPLG	Bos taurus selectin P ligand (SELPLG), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001037628]
ENSBTAG00000021508	-4.165841218	0.034097	LMOD3	leiomodrin 3 [Source:VGNC Symbol;Acc:VGNC:30940]
ENSBTAG00000053542	4.20856679	0.034126	MMP12	Bos taurus matrix metalloproteinase 12 (MMP12), mRNA. [Source:RefSeq mRNA;Acc:NM_001206640]
ENSBTAG00000049048	2.044229953	0.034126	-	-
ENSBTAG00000017451	0.509335225	0.034127	TSPAN17	tetraspanin 17 [Source:VGNC Symbol;Acc:VGNC:36432]
ENSBTAG00000009658	1.059193853	0.034139	PLEK	pleckstrin [Source:VGNC Symbol;Acc:VGNC:33001]
ENSBTAG00000019110	-0.57002215	0.034201	PNRC1	proline rich nuclear receptor coactivator 1 [Source:VGNC Symbol;Acc:VGNC:33098]
novel.1196	0.970572957	0.034212	-	-
ENSBTAG00000038116	0.525910355	0.034212	-	-
ENSBTAG00000018347	-0.626474226	0.034212	IL33	Bos taurus interleukin 33 (IL33), mRNA. [Source:RefSeq mRNA;Acc:NM_001075297]
ENSBTAG00000040356	0.899290497	0.034212	SPIRE2	Bos taurus spire type actin nucleation factor 2 (SPIRE2), mRNA. [Source:RefSeq mRNA;Acc:NM_001205387]
ENSBTAG00000013533	0.57736968	0.034212	CLIC1	chloride intracellular channel 1 [Source:VGNC Symbol;Acc:VGNC:27439]
ENSBTAG00000021805	0.754127592	0.034212	RAB5IF	Bos taurus RAB5 interacting factor (RAB5IF), mRNA. [Source:RefSeq mRNA;Acc:NM_001034421]
ENSBTAG00000011699	1.185940537	0.034492	CDC37	Bos taurus cell division cycle 37 (CDC37), mRNA. [Source:RefSeq mRNA;Acc:NM_001035338]
ENSBTAG00000018415	-0.573989093	0.034697	TTLL4	tubulin tyrosine ligase like 4 [Source:VGNC Symbol;Acc:VGNC:36492]
ENSBTAG00000005048	-3.812524304	0.034763	DHRS7C	Bos taurus dehydrogenase/reductase 7C (DHRS7C), mRNA. [Source:RefSeq mRNA;Acc:NM_001075545]

ENSBTAG00000022632	0.46368258	0.034771	TCTA	Bos taurus T cell leukemia translocation altered (TCTA), mRNA. [Source:RefSeq mRNA;Acc:NM_001034789]
ENSBTAG00000055014	-0.730480962	0.035095	SH3BGRL2	Bos taurus SH3 domain binding glutamate rich protein like 2 (SH3BGRL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083791]
ENSBTAG00000005311	1.010454686	0.035095	POLR3H	Bos taurus RNA polymerase III subunit H (POLR3H), mRNA. [Source:RefSeq mRNA;Acc:NM_001076962]
ENSBTAG00000052230	-6.393579302	0.035196	-	-
ENSBTAG00000051726	1.987707546	0.035282	-	-
ENSBTAG00000023832	1.351814496	0.035282	ADAM8	ADAM metallopeptidase domain 8 [Source:VGNC Symbol;Acc:VGNC:25612]
ENSBTAG00000019077	0.570744309	0.035304	DAD1	Bos taurus defender against cell death 1 (DAD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034761]
ENSBTAG00000009022	0.635352131	0.035304	DNAJC30	Bos taurus DnaJ heat shock protein family (Hsp40) member C30 (DNAJC30), mRNA. [Source:RefSeq mRNA;Acc:NM_001080917]
novel.1395	-2.199540824	0.035304	-	-
ENSBTAG00000018035	-0.798079018	0.035342	TGFBR1	Bos taurus transforming growth factor beta receptor 1 (TGFBR1), mRNA. [Source:RefSeq mRNA;Acc:NM_174621]
ENSBTAG00000001353	0.807802437	0.035342	PMPCA	Bos taurus peptidase, mitochondrial processing alpha subunit (PMPCA), mRNA. [Source:RefSeq mRNA;Acc:NM_001076964]
ENSBTAG00000003307	0.684426006	0.035342	IMMT	Bos taurus inner membrane mitochondrial protein (IMMT), mRNA. [Source:RefSeq mRNA;Acc:NM_001046015]
ENSBTAG00000045925	-0.925398662	0.03542	CITED1	Bos taurus Cbp/p300 interacting transactivator with Glu/Asp rich carboxy-terminal domain 1 (CITED1), mRNA. [Source:RefSeq mRNA;Acc:NM_174518]
novel.299	1.746525743	0.035476	-	-
ENSBTAG00000020661	-0.683805299	0.035476	ABCA1	Bos taurus ATP binding cassette subfamily A member 1 (ABCA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001024693]

ENSBTAG00000014897	1.279179721	0.035476	UNC5A	unc-5 netrin receptor A [Source:VGNC Symbol;Acc:VGNC:36670]
ENSBTAG00000010741	-3.405536791	0.035476	KLHL41	Bos taurus kelch like family member 41 (KLHL41), mRNA. [Source:RefSeq mRNA;Acc:NM_001083377]
ENSBTAG00000019803	0.677101645	0.03563	POLR3K	Bos taurus RNA polymerase III subunit K (POLR3K), mRNA. [Source:RefSeq mRNA;Acc:NM_001046617]
ENSBTAG00000014430	0.585001131	0.03563	CDC26	Bos taurus cell division cycle 26 (CDC26), mRNA. [Source:RefSeq mRNA;Acc:NM_001078153]
ENSBTAG00000046769	-1.379984603	0.035695	SPIN2B	Bos taurus spindlin family member 2B (SPIN2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001105656]
ENSBTAG00000021928	1.115754125	0.035751	DIPK1B	divergent protein kinase domain 1B [Source:VGNC Symbol;Acc:VGNC:28825]
ENSBTAG00000008578	0.63756096	0.035769	LSM4	LSM4 homolog, U6 small nuclear RNA and mRNA degradation associated [Source:VGNC Symbol;Acc:VGNC:31056]
ENSBTAG00000010760	-0.691806804	0.036173	REV3L	Bos taurus REV3 like, DNA directed polymerase zeta catalytic subunit (REV3L), mRNA. [Source:RefSeq mRNA;Acc:NM_001206172]
ENSBTAG00000000290	-0.738706778	0.036173	ATP11B	ATPase phospholipid transporting 11B (putative) [Source:VGNC Symbol;Acc:VGNC:54671]
ENSBTAG00000005075	0.587001913	0.0362	MRPL49	Bos taurus mitochondrial ribosomal protein L49 (MRPL49), mRNA. [Source:RefSeq mRNA;Acc:NM_001014871]
ENSBTAG00000047449	-1.464069571	0.03636	NK2B	antimicrobial peptide NK-lysin [Source:NCBI gene;Acc:104968634]
ENSBTAG00000015590	-0.935577388	0.036435	ICK	Bos taurus intestinal cell kinase (ICK), mRNA. [Source:RefSeq mRNA;Acc:NM_001098887]
ENSBTAG00000002755	-0.707580009	0.036516	ANKRD12	ankyrin repeat domain 12 [Source:VGNC Symbol;Acc:VGNC:25911]
ENSBTAG00000024595	-0.737289577	0.036559	HECA	hdc homolog, cell cycle regulator [Source:VGNC Symbol;Acc:VGNC:29799]

ENSBTAG00000022471	-1.236199371	0.03657	TTPA	Bos taurus alpha tocopherol transfer protein (TTPA), mRNA. [Source:RefSeq mRNA;Acc:NM_001206676]
ENSBTAG00000008925	-0.646799962	0.036626	MRE11	Bos taurus MRE11 homolog, double strand break repair nuclease (MRE11), mRNA. [Source:RefSeq mRNA;Acc:NM_001192605]
ENSBTAG00000010144	0.862875999	0.036686	MTERF2	Bos taurus mitochondrial transcription termination factor 2 (MTERF2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191174]
ENSBTAG00000005078	1.569123309	0.036713	UCHL1	Bos taurus ubiquitin C-terminal hydrolase L1 (UCHL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046172]
ENSBTAG00000021026	0.6437218	0.036857	PJA1	Bos taurus praja ring finger ubiquitin ligase 1 (PJA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001080366]
ENSBTAG00000000990	0.622768351	0.036938	PSMA2	Bos taurus proteasome subunit alpha 2 (PSMA2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034662]
ENSBTAG00000016069	0.439031588	0.036938	ARF4	Bos taurus ADP ribosylation factor 4 (ARF4), mRNA. [Source:RefSeq mRNA;Acc:NM_001034530]
ENSBTAG00000012289	0.852796359	0.036938	AKR7A2	Bos taurus aldo-keto reductase family 7 member A2 (AKR7A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101949]
ENSBTAG00000008376	-0.630337407	0.037	MYORG	Bos taurus myogenesis regulating glycosidase (putative) (MYORG), mRNA. [Source:RefSeq mRNA;Acc:NM_001076240]
ENSBTAG00000020824	0.878256482	0.037	KRT10	keratin 10 [Source:VGNC Symbol;Acc:VGNC:30717]
novel.1314	1.546005796	0.037	-	-
ENSBTAG00000003165	-0.707854684	0.037	ADAMTS9	Bos taurus ADAM metallopeptidase with thrombospondin type 1 motif 9 (ADAMTS9), mRNA. [Source:RefSeq mRNA;Acc:NM_001206573]
ENSBTAG00000013727	0.58988434	0.037	UMPS	uridine monophosphate synthetase [Source:VGNC Symbol;Acc:VGNC:36661]
ENSBTAG00000005439	-0.786672177	0.037105	FAM102B	family with sequence similarity 102 member B [Source:VGNC Symbol;Acc:VGNC:54425]

ENSBTAG00000015470	-2.891327683	0.037105	SYPL2	Bos taurus synaptophysin like 2 (SYPL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075676]
ENSBTAG00000007312	0.709179404	0.037105	CD209	CD209 molecule [Source:NCBI gene;Acc:513266]
ENSBTAG00000018790	-2.129431999	0.037105	BVES	blood vessel epicardial substance [Source:VGNC Symbol;Acc:VGNC:26610]
ENSBTAG00000015996	0.870848168	0.037245	GPC1	glypican 1 [Source:VGNC Symbol;Acc:VGNC:29523]
ENSBTAG00000001663	0.89293669	0.037291	PDF	peptide deformylase, mitochondrial [Source:VGNC Symbol;Acc:VGNC:49562]
ENSBTAG00000023997	0.455556329	0.037298	VAMP8	Bos taurus vesicle associated membrane protein 8 (VAMP8), mRNA. [Source:RefSeq mRNA;Acc:NM_001034290]
ENSBTAG00000021287	0.87093075	0.037302	SLC16A7	Bos taurus solute carrier family 16 member 7 (SLC16A7), mRNA. [Source:RefSeq mRNA;Acc:NM_001076336]
novel.705	-1.733471513	0.037302	-	-
novel.495	-1.323321595	0.037302	-	-
ENSBTAG00000004179	0.686145244	0.037302	PSMD9	proteasome 26S subunit, non-ATPase 9 [Source:VGNC Symbol;Acc:VGNC:53917]
ENSBTAG000000051586	0.982682368	0.037415	ECE2	endothelin converting enzyme 2 [Source:NCBI gene;Acc:281134]
ENSBTAG00000020087	-2.212666887	0.037415	CAMK2A	Bos taurus calcium/calmodulin dependent protein kinase II alpha (CAMK2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001075938]
ENSBTAG00000012681	0.62806707	0.037464	CORO2B	coronin 2B [Source:VGNC Symbol;Acc:VGNC:27624]
ENSBTAG000000053767	-1.533530679	0.037513	-	-
ENSBTAG000000037634	2.814325313	0.037513	-	guanylate binding protein 4 [Source:NCBI gene;Acc:613313]
ENSBTAG00000021132	-3.409054896	0.037513	SYNPO2L	synaptopodin 2 like [Source:VGNC Symbol;Acc:VGNC:54495]
ENSBTAG00000017706	0.622598017	0.037649	SLC39A3	Bos taurus solute carrier family 39 member 3 (SLC39A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001015521]
ENSBTAG00000014306	-0.605465866	0.0378	DOP1B	DOP1 leucine zipper like protein B [Source:VGNC Symbol;Acc:VGNC:28173]

ENSBTAG00000007166	0.71240953	0.037934	CAMKK1	calcium/calmodulin dependent protein kinase kinase 1 [Source:VGNC Symbol;Acc:VGNC:26725]
ENSBTAG00000011585	-0.639758753	0.038013	MST1	Bos taurus macrophage stimulating 1 (MST1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075677]
ENSBTAG00000003014	0.929395381	0.038128	TRPV2	Bos taurus transient receptor potential cation channel subfamily V member 2 (TRPV2), mRNA. [Source:RefSeq mRNA;Acc:NM_001024493]
ENSBTAG00000000421	-0.73566969	0.038128	EEA1	early endosome antigen 1 [Source:VGNC Symbol;Acc:VGNC:54421]
ENSBTAG00000027375	-0.792569689	0.038322	DUSP22	dual specificity phosphatase 22 [Source:VGNC Symbol;Acc:VGNC:28256]
ENSBTAG00000009209	-0.667560682	0.038322	BEND5	Bos taurus BEN domain containing 5 (BEND5), mRNA. [Source:RefSeq mRNA;Acc:NM_001190953]
ENSBTAG00000021071	0.929648754	0.038322	TRIM8	Bos taurus tripartite motif containing 8 (TRIM8), mRNA. [Source:RefSeq mRNA;Acc:NM_001191476]
ENSBTAG00000020436	-0.609200495	0.038322	KIF27	Bos taurus kinesin family member 27 (KIF27), mRNA. [Source:RefSeq mRNA;Acc:NM_001206123]
ENSBTAG00000015888	-0.664545091	0.038373	PDE7B	phosphodiesterase 7B [Source:VGNC Symbol;Acc:VGNC:32686]
ENSBTAG00000035907	-0.565754413	0.038587	DDX3X	DEAD-box helicase 3 X-linked [Source:VGNC Symbol;Acc:VGNC:56526]
ENSBTAG00000020407	0.567780057	0.038587	MTSS1	Bos taurus MTSS1, I-BAR domain containing (MTSS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192581]
ENSBTAG00000031696	-0.735813998	0.038651	ANKRD44	ankyrin repeat domain 44 [Source:VGNC Symbol;Acc:VGNC:55324]
ENSBTAG00000013308	-0.471206985	0.038651	RBMX	Bos taurus RNA binding motif protein X-linked (RBMX), mRNA. [Source:RefSeq mRNA;Acc:NM_001172039]
novel.877	1.758035975	0.038658	-	PF03982:Diacylglycerol acyltransferase
ENSBTAG00000019911	0.848496554	0.038658	COA3	cytochrome c oxidase assembly factor 3 [Source:VGNC Symbol;Acc:VGNC:27543]

ENSBTAG00000046569	0.852166876	0.038755	CISD3	CDGSH iron sulfur domain 3 [Source:VGNC Symbol;Acc:VGNC:27373]
ENSBTAG00000008562	-0.674720761	0.038807	POGLUT1	Bos taurus protein O-glucosyltransferase 1 (POGLUT1), mRNA. [Source:RefSeq mRNA;Acc:NM_001014903]
ENSBTAG00000001017	-0.801968996	0.038807	SLK	Bos taurus STE20 like kinase (SLK), mRNA. [Source:RefSeq mRNA;Acc:NM_001206077]
ENSBTAG00000037899	-2.885592371	0.039029	DLK1	delta like non-canonical Notch ligand 1 [Source:VGNC Symbol;Acc:VGNC:28092]
ENSBTAG00000013339	-1.435213822	0.039071	NEBL	nebulette [Source:VGNC Symbol;Acc:VGNC:57012]
ENSBTAG00000009778	-0.767503507	0.039129	KRAS	Bos taurus KRAS proto-oncogene, GTPase (KRAS), mRNA. [Source:RefSeq mRNA;Acc:NM_001110001]
ENSBTAG00000001003	-3.74542791	0.039129	CKMT2	Bos taurus creatine kinase, mitochondrial 2 (CKMT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034656]
novel.579	1.87984933	0.039132	-	-
ENSBTAG00000017376	1.373632163	0.039238	GALNT5	polypeptide N-acetylgalactosaminyltransferase 5 [Source:VGNC Symbol;Acc:VGNC:29233]
ENSBTAG00000013166	-0.656068497	0.039276	SMYD2	Bos taurus SET and MYND domain containing 2 (SMYD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001076364]
ENSBTAG00000004826	0.940528042	0.039672	ACP5	Bos taurus acid phosphatase 5, tartrate resistant (ACP5), mRNA. [Source:RefSeq mRNA;Acc:NM_001256558]
ENSBTAG00000014581	-2.731565623	0.039742	MLIP	muscular LMNA interacting protein [Source:VGNC Symbol;Acc:VGNC:31499]
ENSBTAG00000005974	-2.379642804	0.039768	APOBEC2	apolipoprotein B mRNA editing enzyme catalytic subunit 2 [Source:VGNC Symbol;Acc:VGNC:26028]
ENSBTAG00000005477	0.754030567	0.040037	LAPTM5	Bos taurus lysosomal protein transmembrane 5 (LAPTM5), mRNA. [Source:RefSeq mRNA;Acc:NM_001046118]
ENSBTAG00000002623	0.604609057	0.040127	SAMSN1	Bos taurus SAM domain, SH3 domain and nuclear localization signals 1 (SAMSN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035404]

ENSBTAG00000007131	-3.384570281	0.040147	GADL1	Bos taurus glutamate decarboxylase like 1 (GADL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001102281]
ENSBTAG00000009030	-2.384531389	0.04016	NOX5	NADPH oxidase 5 [Source:VGNC Symbol;Acc:VGNC:32185]
ENSBTAG00000014843	0.464639061	0.04016	COPB2	coatamer protein complex subunit beta 2 [Source:VGNC Symbol;Acc:VGNC:27594]
ENSBTAG00000009703	-3.940628485	0.040264	MYH7	Bos taurus myosin heavy chain 7 (MYH7), mRNA. [Source:RefSeq mRNA;Acc:NM_174727]
ENSBTAG00000016523	1.578949149	0.040264	DNAH10	dynein axonemal heavy chain 10 [Source:VGNC Symbol;Acc:VGNC:28123]
ENSBTAG00000003572	-1.461406077	0.040264	F11	coagulation factor XI [Source:VGNC Symbol;Acc:VGNC:28678]
ENSBTAG00000009966	1.039491472	0.040264	XRCC3	X-ray repair cross complementing 3 [Source:VGNC Symbol;Acc:VGNC:37004]
ENSBTAG00000052650	-1.219099483	0.040264	-	-
ENSBTAG00000018286	0.530960846	0.040264	RNF181	ring finger protein 181 [Source:VGNC Symbol;Acc:VGNC:34039]
ENSBTAG00000038682	0.804659543	0.040264	FAM83H	family with sequence similarity 83 member H [Source:VGNC Symbol;Acc:VGNC:28839]
ENSBTAG00000052508	1.216691142	0.040305	SEM1	Bos taurus SEM1, 26S proteasome complex subunit (SEM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001113317]
ENSBTAG00000010551	-2.505080693	0.040313	ATP1A2	Bos taurus ATPase Na ⁺ /K ⁺ transporting subunit alpha 2 (ATP1A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001081524]
ENSBTAG00000038051	0.572872832	0.040314	-	AFG3-like protein 1 [Source:NCBI gene;Acc:532875]
ENSBTAG00000018052	-0.612018147	0.040336	PTPRS	protein tyrosine phosphatase, receptor type S [Source:VGNC Symbol;Acc:VGNC:33558]
ENSBTAG00000014517	-0.993619682	0.040336	KLB	Bos taurus klotho beta (KLB), mRNA. [Source:RefSeq mRNA;Acc:NM_001205326]
ENSBTAG00000013698	1.284922043	0.040467	TTC25	tetratricopeptide repeat domain 25 [Source:VGNC Symbol;Acc:VGNC:36464]

ENSBTAG00000018837	0.53427055	0.040478	SLC39A11	solute carrier family 39 member 11 [Source:VGNC Symbol;Acc:VGNC:34859]
ENSBTAG00000053087	1.253002534	0.040556	-	-
ENSBTAG00000014764	0.690354207	0.040556	CD9	Bos taurus CD9 molecule (CD9), mRNA. [Source:RefSeq mRNA;Acc:NM_173900]
ENSBTAG00000014089	0.714855139	0.040556	PPCDC	phosphopantothenoylcysteine decarboxylase [Source:VGNC Symbol;Acc:VGNC:33188]
ENSBTAG00000003806	0.759161898	0.040653	ECM1	extracellular matrix protein 1 [Source:VGNC Symbol;Acc:VGNC:28311]
ENSBTAG00000015089	0.734364258	0.041116	LGALS1	Bos taurus galectin 1 (LGALS1), mRNA. [Source:RefSeq mRNA;Acc:NM_175782]
ENSBTAG00000015406	-3.640699057	0.041205	ZNF750	zinc finger protein 750 [Source:VGNC Symbol;Acc:VGNC:37340]
ENSBTAG00000053674	1.108242815	0.041297	-	-
novel.1244	-4.251751947	0.041353	-	PF07679:Immunoglobulin I-set domain
ENSBTAG00000002083	-0.807439857	0.041353	AUTS2	AUTS2, activator of transcription and developmental regulator [Source:VGNC Symbol;Acc:VGNC:26352]
ENSBTAG00000031658	-0.782316435	0.041375	SEMA6B	semaphorin 6B [Source:VGNC Symbol;Acc:VGNC:34442]
ENSBTAG00000004243	0.655310041	0.041375	-	Acyl-protein thioesterase 1 [Source:UniProtKB/Swiss-Prot;Acc:Q3MHR0]
ENSBTAG00000009267	-0.491454901	0.041657	UHRF1BP1	UHRF1 binding protein 1 [Source:VGNC Symbol;Acc:VGNC:36655]
ENSBTAG00000033137	-0.774700189	0.041704	PSD3	pleckstrin and Sec7 domain containing 3 [Source:VGNC Symbol;Acc:VGNC:57317]
ENSBTAG00000019554	-3.806664288	0.041714	FBP2	fructose-bisphosphatase 2 [Source:VGNC Symbol;Acc:VGNC:28888]
ENSBTAG00000025250	1.973256006	0.041809	-	-
ENSBTAG00000015562	-0.724906593	0.04196	PLBD1	Bos taurus phospholipase B domain containing 1 (PLBD1), transcript variant b, mRNA. [Source:RefSeq mRNA;Acc:NM_001101044]
ENSBTAG00000019622	1.763647457	0.042017	TPBGL	trophoblast glycoprotein like [Source:NCBI gene;Acc:786625]

ENSBTAG00000054537	-2.265929843	0.042034	-	-
ENSBTAG00000025021	-1.522670834	0.042034	FMN2	formin 2 [Source:HGNC Symbol;Acc:HGNC:14074]
ENSBTAG00000017765	0.683187178	0.042034	GSTM1	Bos taurus glutathione S-transferase M1 (GSTM1), mRNA. [Source:RefSeq mRNA;Acc:NM_175825]
ENSBTAG00000001932	0.774831642	0.042079	CRAT	Bos taurus carnitine O-acetyltransferase (CRAT), mRNA. [Source:RefSeq mRNA;Acc:NM_001075587]
ENSBTAG00000019065	0.793712074	0.042079	EEPD1	Bos taurus endonuclease/exonuclease/phosphatase family domain containing 1 (EEPD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034409]
ENSBTAG00000020998	0.789829129	0.042079	RUVBL1	Bos taurus RuvB like AAA ATPase 1 (RUVBL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001101076]
ENSBTAG00000005215	0.838957798	0.042079	IL10RA	interleukin 10 receptor subunit alpha [Source:VGNC Symbol;Acc:VGNC:30107]
ENSBTAG00000009236	0.487650718	0.042079	DAGLB	Bos taurus diacylglycerol lipase beta (DAGLB), mRNA. [Source:RefSeq mRNA;Acc:NM_001083487]
ENSBTAG00000021767	0.541767845	0.042172	UBE2N	Bos taurus ubiquitin conjugating enzyme E2 N (UBE2N), mRNA. [Source:RefSeq mRNA;Acc:NM_001076258]
ENSBTAG00000006466	0.854222378	0.042227	CD53	Bos taurus CD53 molecule (CD53), mRNA. [Source:RefSeq mRNA;Acc:NM_001034232]
ENSBTAG00000011374	-1.119326663	0.042287	S1PR3	Bos taurus sphingosine-1-phosphate receptor 3 (S1PR3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101186]
ENSBTAG00000021452	-0.534105216	0.042328	TRANK1	tetratricopeptide repeat and ankyrin repeat containing 1 [Source:VGNC Symbol;Acc:VGNC:36282]
ENSBTAG00000017032	-3.098548353	0.04244	FREM2	FRAS1 related extracellular matrix protein 2 [Source:VGNC Symbol;Acc:VGNC:29111]
ENSBTAG00000019998	0.79372432	0.04244	HAGH	hydroxyacylglutathione hydrolase [Source:VGNC Symbol;Acc:VGNC:29742]
ENSBTAG00000011184	0.544447174	0.04244	FTH1	Bos taurus ferritin heavy chain 1 (FTH1), mRNA. [Source:RefSeq mRNA;Acc:NM_174062]

ENSBTAG00000021182	-0.676670063	0.04244	DOCK4	dedicator of cytokinesis 4 [Source:VGNC Symbol;Acc:VGNC:28158]
ENSBTAG00000046256	-1.736762801	0.04286	TMEM132C	transmembrane protein 132C [Source:VGNC Symbol;Acc:VGNC:35967]
ENSBTAG00000017779	0.750262232	0.042919	HSD17B10	hydroxysteroid 17-beta dehydrogenase 10 [Source:VGNC Symbol;Acc:VGNC:29969]
ENSBTAG00000017189	0.409355182	0.043014	POLE4	DNA polymerase epsilon 4, accessory subunit [Source:VGNC Symbol;Acc:VGNC:33121]
ENSBTAG00000017743	-3.625273283	0.043064	XIRP2	xin actin binding repeat containing 2 [Source:VGNC Symbol;Acc:VGNC:36986]
ENSBTAG00000018202	0.492958259	0.043118	CYB561A3	Bos taurus cytochrome b561 family member A3 (CYB561A3), mRNA. [Source:RefSeq mRNA;Acc:NM_001099149]
ENSBTAG00000039340	-3.300271046	0.043118	SCN4B	Bos taurus sodium voltage-gated channel beta subunit 4 (SCN4B), mRNA. [Source:RefSeq mRNA;Acc:NM_001076912]
ENSBTAG00000015012	0.71520432	0.043118	PTRHD1	peptidyl-tRNA hydrolase domain containing 1 [Source:VGNC Symbol;Acc:VGNC:33563]
ENSBTAG00000014649	0.810076345	0.043164	CPT2	Bos taurus carnitine palmitoyltransferase 2 (CPT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001045889]
ENSBTAG00000008024	0.975986848	0.043501	UCHL3	ubiquitin C-terminal hydrolase L3 [Source:VGNC Symbol;Acc:VGNC:36632]
ENSBTAG00000053347	1.172637992	0.043594	-	-
ENSBTAG00000035437	-0.592803282	0.043728	STAG1	stromal antigen 1 [Source:VGNC Symbol;Acc:VGNC:35353]
ENSBTAG00000020985	1.736764194	0.04374	TYRP1	Bos taurus tyrosinase related protein 1 (TYRP1), mRNA. [Source:RefSeq mRNA;Acc:NM_174480]
novel.367	-1.109479378	0.044008	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000011857	0.645900922	0.044008	PPM1H	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent 1H [Source:VGNC Symbol;Acc:VGNC:33214]
novel.1383	-0.750174982	0.044073	-	-

ENSBTAG00000011392	-4.024772617	0.04414	MYBPC1	Bos taurus myosin binding protein C, slow type (MYBPC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001110773]
ENSBTAG00000046155	0.656426094	0.044163	RGN	regucalcin [Source:VGNC Symbol;Acc:VGNC:33907]
ENSBTAG00000007619	0.83619101	0.044169	PUSL1	pseudouridine synthase like 1 [Source:VGNC Symbol;Acc:VGNC:33578]
ENSBTAG00000009501	-1.430470973	0.04453	KLKB1	Bos taurus kallikrein B1 (KLKB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046352]
ENSBTAG00000013201	0.887779796	0.044659	ALOX5AP	arachidonate 5-lipoxygenase activating protein [Source:VGNC Symbol;Acc:VGNC:25845]
ENSBTAG00000008184	0.773318981	0.044788	CCT6A	Bos taurus chaperonin containing TCP1 subunit 6A (CCT6A), mRNA. [Source:RefSeq mRNA;Acc:NM_001034542]
ENSBTAG00000048501	-2.192198327	0.044878	ST8SIA2	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 2 [Source:NCBI gene;Acc:540267]
ENSBTAG00000020318	0.695437526	0.045082	DBNDD1	Bos taurus dysbindin domain containing 1 (DBNDD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099005]
ENSBTAG00000000343	0.864411671	0.045082	ZNHIT1	zinc finger HIT-type containing 1 [Source:VGNC Symbol;Acc:VGNC:37358]
ENSBTAG00000016679	0.853211528	0.045083	ETFDH	electron transfer flavoprotein dehydrogenase [Source:VGNC Symbol;Acc:VGNC:28621]
ENSBTAG00000044078	-1.457226911	0.045172	TESC	tescalcin [Source:VGNC Symbol;Acc:VGNC:35753]
ENSBTAG00000020042	-0.913376615	0.045248	KLHL28	Bos taurus kelch like family member 28 (KLHL28), mRNA. [Source:RefSeq mRNA;Acc:NM_001099030]
ENSBTAG00000014172	1.032077374	0.045391	FGD2	Bos taurus FYVE, RhoGEF and PH domain containing 2 (FGD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075570]
ENSBTAG00000054134	-2.549325342	0.04555	-	-
ENSBTAG00000015579	0.838494812	0.045846	TMEM160	transmembrane protein 160 [Source:VGNC Symbol;Acc:VGNC:35985]
ENSBTAG00000010350	-0.711007785	0.045938	USP53	ubiquitin specific peptidase 53 [Source:NCBI gene;Acc:107131223]

ENSBTAG00000002028	-0.664010318	0.046012	DIPK1A	Bos taurus family with sequence similarity 69 member A (FAM69A), mRNA. [Source:RefSeq mRNA;Acc:NM_001083500]
ENSBTAG00000029317	-2.358426541	0.04611	RF00001	-
ENSBTAG00000021048	-0.757862079	0.046142	ADM	Bos taurus adrenomedullin (ADM), mRNA. [Source:RefSeq mRNA;Acc:NM_173888]
ENSBTAG00000024086	-0.699696865	0.04621	TMEM35B	transmembrane protein 35B [Source:VGNC Symbol;Acc:VGNC:36078]
ENSBTAG00000013793	-0.635637964	0.046238	NEDD4	neural precursor cell expressed, developmentally down-regulated 4, E3 ubiquitin protein ligase [Source:VGNC Symbol;Acc:VGNC:55128]
ENSBTAG00000019810	0.609975525	0.046238	AARS	Bos taurus alanyl-tRNA synthetase (AARS), mRNA. [Source:RefSeq mRNA;Acc:NM_001101075]
ENSBTAG00000021657	-3.815227485	0.046238	CACNG6	calcium voltage-gated channel auxiliary subunit gamma 6 [Source:VGNC Symbol;Acc:VGNC:26691]
ENSBTAG00000018482	0.577952958	0.046238	KBTBD4	Bos taurus kelch repeat and BTB domain containing 4 (KBTBD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001076463]
ENSBTAG00000001854	0.520873601	0.046238	CIAPIN1	cytokine induced apoptosis inhibitor 1 [Source:VGNC Symbol;Acc:VGNC:27357]
ENSBTAG00000044173	-0.675218595	0.046238	EHBP1	EH domain binding protein 1 [Source:VGNC Symbol;Acc:VGNC:28370]
ENSBTAG00000002030	-1.214807116	0.046238	SPP2	Bos taurus secreted phosphoprotein 2 (SPP2), mRNA. [Source:RefSeq mRNA;Acc:NM_174188]
ENSBTAG00000049829	-1.450897973	0.046284	-	-
ENSBTAG00000001139	1.187079125	0.046358	ACHE	acetylcholinesterase (Cartwright blood group) [Source:NCBI gene;Acc:540446]
ENSBTAG00000016886	-3.564589857	0.046358	MT3	metallothionein 3 [Source:VGNC Symbol;Acc:VGNC:52208]
novel.392	2.503229771	0.046358	-	-
ENSBTAG00000018312	0.59151838	0.046358	-	-

ENSBTAG00000015416	-3.216341259	0.046399	PEBP4	Bos taurus phosphatidylethanolamine binding protein 4 (PEBP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001034440]
novel.254	-3.220696383	0.0464	-	-
ENSBTAG00000005390	0.775714928	0.046402	GMFG	Bos taurus glia maturation factor gamma (GMFG), mRNA. [Source:RefSeq mRNA;Acc:NM_001024537]
ENSBTAG00000004344	1.040631153	0.046434	ACSL1	acyl-CoA synthetase long chain family member 1 [Source:VGNC Symbol;Acc:VGNC:25564]
ENSBTAG00000039657	2.256029045	0.046456	HIST1H2AC	Bos taurus histone cluster 1, H2ac (HIST1H2AC), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001205596]
ENSBTAG00000006073	1.185217839	0.046538	PODNL1	podocan like 1 [Source:VGNC Symbol;Acc:VGNC:33102]
ENSBTAG00000001463	-0.741285081	0.046743	TNKS	Bos taurus tankyrase (TNKS), mRNA. [Source:RefSeq mRNA;Acc:NM_001206160]
ENSBTAG00000017273	1.050344059	0.046743	LRRC25	Bos taurus leucine rich repeat containing 25 (LRRC25), mRNA. [Source:RefSeq mRNA;Acc:NM_174688]
ENSBTAG00000017218	0.84809349	0.046743	ACER3	Bos taurus alkaline ceramidase 3 (ACER3), mRNA. [Source:RefSeq mRNA;Acc:NM_001102285]
ENSBTAG00000017253	0.878015788	0.04687	MECR	mitochondrial trans-2-enoyl-CoA reductase [Source:VGNC Symbol;Acc:VGNC:31345]
ENSBTAG00000019052	-1.281301047	0.046904	ANK3	Bos taurus ankyrin 3 (ANK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001105620]
ENSBTAG00000008674	0.654057438	0.046975	FAM136A	Bos taurus family with sequence similarity 136 member A (FAM136A), mRNA. [Source:RefSeq mRNA;Acc:NM_001046588]
ENSBTAG00000018994	-0.656209354	0.047005	TNFSF10	TNF superfamily member 10 [Source:VGNC Symbol;Acc:VGNC:36172]
ENSBTAG00000006541	-3.755327284	0.047005	ATP2A1	Bos taurus ATPase sarcoplasmic/endoplasmic reticulum Ca ²⁺ transporting 1 (ATP2A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075767]
ENSBTAG00000007766	0.649129344	0.047013	CDK5	cyclin dependent kinase 5 [Source:VGNC Symbol;Acc:VGNC:27127]

ENSBTAG00000011266	-0.877136495	0.047013	ZBTB16	Bos taurus zinc finger and BTB domain containing 16 (ZBTB16), mRNA. [Source:RefSeq mRNA;Acc:NM_001037476]
ENSBTAG00000046585	-1.590944771	0.047013	RTL1	Bos taurus retrotransposon Gag like 1 (RTL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001195020]
ENSBTAG00000021798	-0.7020951	0.04709	ERBB2	erb-b2 receptor tyrosine kinase 2 [Source:VGNC Symbol;Acc:VGNC:28563]
ENSBTAG00000012285	-3.170406808	0.04709	ESRRB	estrogen related receptor beta [Source:VGNC Symbol;Acc:VGNC:28609]
ENSBTAG00000022161	1.027128281	0.04714	TLR7	toll like receptor 7 [Source:VGNC Symbol;Acc:VGNC:52836]
ENSBTAG00000021695	0.786522315	0.04714	GLYCTK	glycerate kinase [Source:VGNC Symbol;Acc:VGNC:29429]
ENSBTAG00000003788	0.621872767	0.047424	RCC1	Bos taurus regulator of chromosome condensation 1 (RCC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105408]
ENSBTAG00000004989	0.893147925	0.047424	IRF5	Bos taurus interferon regulatory factor 5 (IRF5), mRNA. [Source:RefSeq mRNA;Acc:NM_001035465]
ENSBTAG000000051176	-0.935013237	0.047757	-	-
ENSBTAG00000008533	-0.670189225	0.047992	GLCCI1	glucocorticoid induced 1 [Source:VGNC Symbol;Acc:VGNC:29393]
ENSBTAG00000004316	-0.491306143	0.047998	BOD1L1	bioorientation of chromosomes in cell division 1 like 1 [Source:VGNC Symbol;Acc:VGNC:26537]
ENSBTAG000000047752	-1.308983427	0.048089	OTUD1	OTU deubiquitinase 1 [Source:VGNC Symbol;Acc:VGNC:32493]
ENSBTAG000000031532	-0.741522538	0.048094	DACT2	dishevelled binding antagonist of beta catenin 2 [Source:VGNC Symbol;Acc:VGNC:27868]
ENSBTAG000000054302	0.945619207	0.048209	TCF23	transcription factor 23 [Source:HGNC Symbol;Acc:HGNC:18602]
ENSBTAG00000013341	-0.681018388	0.048209	GYG2	glycogenin 2 [Source:VGNC Symbol;Acc:VGNC:29729]
ENSBTAG00000012508	0.808766831	0.048209	OSGIN1	Bos taurus oxidative stress induced growth inhibitor 1 (OSGIN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077129]

ENSBTAG00000008520	0.614595118	0.048209	NFIC	Bos taurus nuclear factor I C (NFIC), mRNA. [Source:RefSeq mRNA;Acc:NM_001024574]
ENSBTAG00000007281	-1.051852006	0.048209	SEMA6C	semaphorin 6C [Source:VGNC Symbol;Acc:VGNC:34443]
ENSBTAG00000014020	-2.251388597	0.048413	RTKN2	rhotekin 2 [Source:VGNC Symbol;Acc:VGNC:34198]
ENSBTAG00000046332	-3.765422189	0.048413	ACTA1	actin, alpha 1, skeletal muscle [Source:VGNC Symbol;Acc:VGNC:25573]
ENSBTAG00000051239	-0.64639698	0.04856	-	-
ENSBTAG00000050189	-2.342768833	0.048866	-	-
ENSBTAG00000005163	-1.329060591	0.049017	S100A1	S100 calcium binding protein A1 [Source:VGNC Symbol;Acc:VGNC:34236]
ENSBTAG00000004063	1.130427458	0.049017	SERPINA5	serpin family A member 5 [Source:VGNC Symbol;Acc:VGNC:53954]
ENSBTAG00000002827	0.760560184	0.049017	ACAT2	Bos taurus acetyl-CoA acetyltransferase 2 (ACAT2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075549]
ENSBTAG00000007843	-1.083552723	0.049176	ITIH1	Bos taurus inter-alpha-trypsin inhibitor heavy chain 1 (ITIH1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075353]
ENSBTAG00000020456	0.657892846	0.049385	AGPAT3	Bos taurus 1-acylglycerol-3-phosphate O-acyltransferase 3 (AGPAT3), mRNA. [Source:RefSeq mRNA;Acc:NM_001038046]
novel.771	-1.215294011	0.049385	-	-
ENSBTAG00000024826	-4.453325845	0.049444	TECRL	Bos taurus trans-2,3-enoyl-CoA reductase like (TECRL), mRNA. [Source:RefSeq mRNA;Acc:NM_001080324]
ENSBTAG00000018307	-0.530703609	0.049641	SEMA3F	semaphorin 3F [Source:VGNC Symbol;Acc:VGNC:34431]
ENSBTAG00000010508	0.63976366	0.049719	BLVRB	biliverdin reductase B [Source:VGNC Symbol;Acc:VGNC:26511]
ENSBTAG00000004899	-0.524982633	0.049894	ABLIM1	actin binding LIM protein 1 [Source:VGNC Symbol;Acc:VGNC:55931]
ENSBTAG00000000009	0.817012931	0.049905	FOXF1	forkhead box F1 [Source:VGNC Symbol;Acc:VGNC:29084]
ENSBTAG00000006030	-2.867837676	0.049905	MYOG	Bos taurus myogenin (MYOG), mRNA. [Source:RefSeq mRNA;Acc:NM_001111325]
ENSBTAG00000052115	-3.363782307	0.049905	-	-

ENSBTAG00000001795	0.691639193	0.049938	LONP1	Bos taurus lon peptidase 1, mitochondrial (LONP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001015569]
ENSBTAG00000030259	-0.571903236	0.050079	RASGRF2	Ras protein specific guanine nucleotide releasing factor 2 [Source:VGNC Symbol;Acc:VGNC:33746]
novel.445	-4.507321198	0.050202	-	-
ENSBTAG00000048573	-1.956496038	0.050222	-	-
ENSBTAG00000011424	-2.874118013	0.050222	TPM2	Bos taurus tropomyosin 2 (TPM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001010995]
ENSBTAG00000001398	-2.128679854	0.050222	ATP2A2	Bos taurus ATPase sarcoplasmic/endoplasmic reticulum Ca2+ transporting 2 (ATP2A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191430]
ENSBTAG00000013469	-1.281782642	0.050315	SRCIN1	SRC kinase signaling inhibitor 1 [Source:VGNC Symbol;Acc:VGNC:35270]
ENSBTAG00000048873	-1.671736529	0.050324	-	-
novel.524	0.791374337	0.050325	-	-
ENSBTAG00000003763	-1.128181089	0.050449	MYO5C	myosin VC [Source:VGNC Symbol;Acc:VGNC:31828]
ENSBTAG00000003813	0.879543869	0.050449	BCS1L	Bos taurus BCS1 homolog, ubiquinol-cytochrome c reductase complex chaperone (BCS1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001015671]
ENSBTAG00000014872	0.397574088	0.050551	CAPNS1	Bos taurus calpain small subunit 1 (CAPNS1), mRNA. [Source:RefSeq mRNA;Acc:NM_174261]
ENSBTAG00000007998	0.610912241	0.050801	TMCO4	transmembrane and coiled-coil domains 4 [Source:VGNC Symbol;Acc:VGNC:35931]
ENSBTAG00000020205	-0.637886343	0.050801	-	phosphodiesterase 8B [Source:NCBI gene;Acc:107131388]
ENSBTAG00000009914	0.82054547	0.050801	NDUFS6	Bos taurus NADH:ubiquinone oxidoreductase subunit S6 (NDUFS6), mRNA. [Source:RefSeq mRNA;Acc:NM_175810]
ENSBTAG00000019093	-0.600534551	0.050926	AMY2B	Bos taurus amylase, alpha 2B (pancreatic) (AMY2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001035016]
ENSBTAG00000007288	-0.639974121	0.051478	CDK19	Bos taurus cyclin dependent kinase 19 (CDK19), mRNA. [Source:RefSeq mRNA;Acc:NM_001205707]

ENSBTAG0000000244	0.854483281	0.051506	NRXN2	neurexin 2 [Source:VGNC Symbol;Acc:VGNC:32271]
ENSBTAG00000046979	0.793353056	0.051556	LGMN	Bos taurus legumain (LGMN), mRNA. [Source:RefSeq mRNA;Acc:NM_174101]
ENSBTAG00000009460	-0.917730243	0.05164	-	-
ENSBTAG00000014930	-3.528996955	0.051668	MYLK2	Bos taurus myosin light chain kinase 2 (MYLK2), mRNA. [Source:RefSeq mRNA;Acc:NM_001083719]
ENSBTAG00000024545	-0.604978604	0.051775	-	-
ENSBTAG00000009852	-0.921891609	0.051862	NAV3	Bos taurus neuron navigator 3 (NAV3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192669]
ENSBTAG00000014237	0.941146288	0.051862	CYTH4	Bos taurus cytohesin 4 (CYTH4), mRNA. [Source:RefSeq mRNA;Acc:NM_001256669]
ENSBTAG00000054385	-1.720930674	0.051883	-	-
ENSBTAG00000015952	0.839614564	0.05189	ADAP1	ArfGAP with dual PH domains 1 [Source:VGNC Symbol;Acc:VGNC:25633]
ENSBTAG00000020872	0.932396937	0.051911	C5AR1	complement C5a receptor 1 [Source:VGNC Symbol;Acc:VGNC:26641]
ENSBTAG00000054986	-0.763378241	0.052108	ACAP2	ArfGAP with coiled-coil, ankyrin repeat and PH domains 2 [Source:HGNC Symbol;Acc:HGNC:16469]
ENSBTAG00000019314	-0.659021816	0.052108	USP25	ubiquitin specific peptidase 25 [Source:VGNC Symbol;Acc:VGNC:36718]
ENSBTAG00000022039	0.898240802	0.052794	CMKLR1	Bos taurus chemerin chemokine-like receptor 1 (CMKLR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001145235]
ENSBTAG00000003349	-2.85598535	0.053108	JAKMIP2	Bos taurus janus kinase and microtubule interacting protein 2 (JAKMIP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075897]
ENSBTAG00000009533	-2.464995928	0.053193	RPL3L	Bos taurus ribosomal protein L3 like (RPL3L), mRNA. [Source:RefSeq mRNA;Acc:NM_001035501]
ENSBTAG00000019885	-0.916942601	0.053378	ZNF280C	zinc finger protein 280C [Source:VGNC Symbol;Acc:VGNC:37238]
ENSBTAG00000004647	6.461364381	0.053535	UCP1	Bos taurus uncoupling protein 1 (UCP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001166528]

ENSBTAG00000002127	-0.545835234	0.053551	TCP11L2	Bos taurus t-complex 11 like 2 (TCP11L2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105431]
ENSBTAG00000018065	0.548530238	0.053551	YARS	Bos taurus tyrosyl-tRNA synthetase (YARS), mRNA. [Source:RefSeq mRNA;Acc:NM_174220]
ENSBTAG00000000501	-0.690397637	0.053551	KLHL13	Bos taurus kelch like family member 13 (KLHL13), mRNA. [Source:RefSeq mRNA;Acc:NM_001102511]
ENSBTAG00000001032	-3.632842865	0.053551	PYGM	Bos taurus glycogen phosphorylase, muscle associated (PYGM), mRNA. [Source:RefSeq mRNA;Acc:NM_175786]
ENSBTAG00000018267	-3.921301086	0.053578	TRIM54	Bos taurus tripartite motif containing 54 (TRIM54), mRNA. [Source:RefSeq mRNA;Acc:NM_001017951]
ENSBTAG00000011575	0.524548022	0.053578	RFNG	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase [Source:VGNC Symbol;Acc:VGNC:55866]
ENSBTAG00000048005	-3.363349783	0.053591	MGC157368	Bos taurus uncharacterized LOC789809 (MGC157368), mRNA. [Source:RefSeq mRNA;Acc:NM_001083801]
ENSBTAG00000002853	-2.174520699	0.053591	HRC	Bos taurus histidine rich calcium binding protein (HRC), mRNA. [Source:RefSeq mRNA;Acc:NM_001102313]
ENSBTAG00000017450	-0.978362403	0.053591	KLHL24	Bos taurus kelch like family member 24 (KLHL24), mRNA. [Source:RefSeq mRNA;Acc:NM_001206196]
ENSBTAG000000008747	0.579445528	0.053673	DCXR	L-xylulose reductase [Source:UniProtKB/Swiss-Prot;Acc:Q1JP75]
ENSBTAG000000003200	-0.739197498	0.053696	-	chondroitin sulfate proteoglycan 4 [Source:NCBI gene;Acc:530348]
ENSBTAG00000010652	-1.409077772	0.05379	PDE4C	phosphodiesterase 4C [Source:VGNC Symbol;Acc:VGNC:50242]
ENSBTAG00000000011	2.06759674	0.05379	-	L-threonine dehydrogenase [Source:NCBI gene;Acc:511957]
ENSBTAG00000047254	0.66819699	0.053917	ABCA2	ATP binding cassette subfamily A member 2 [Source:VGNC Symbol;Acc:VGNC:25457]
ENSBTAG00000001888	-0.533081205	0.053921	MED13L	Bos taurus mediator complex subunit 13-like (MED13L), mRNA. [Source:RefSeq mRNA;Acc:NM_001192468]

ENSBTAG00000005137	-0.592129063	0.053935	LPGAT1	Bos taurus lysophosphatidylglycerol acyltransferase 1 (LPGAT1), mRNA. [Source:RefSeq mRNA;Acc:NM_001083756]
ENSBTAG00000049308	-0.91965387	0.053946	GAS2L3	growth arrest specific 2 like 3 [Source:NCBI gene;Acc:782903]
ENSBTAG00000001407	0.550104678	0.053946	AP3S2	Bos taurus adaptor related protein complex 3 subunit sigma 2 (AP3S2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075376]
ENSBTAG00000046561	-0.827294119	0.053985	LCORL	Bos taurus ligand dependent nuclear receptor corepressor like (LCORL), mRNA. [Source:RefSeq mRNA;Acc:NM_001192357]
ENSBTAG00000007698	1.908057335	0.054021	TMEM59L	transmembrane protein 59 like [Source:VGNC Symbol;Acc:VGNC:36100]
ENSBTAG00000013926	-0.501505644	0.054021	FCGRT	Fc fragment of IgG receptor and transporter [Source:VGNC Symbol;Acc:VGNC:28934]
ENSBTAG00000004189	-0.67367727	0.05407	MLXIP	MLX interacting protein [Source:VGNC Symbol;Acc:VGNC:31509]
ENSBTAG00000048329	-1.393071532	0.054257	-	-
ENSBTAG000000051767	-1.478746067	0.054267	-	-
ENSBTAG000000039160	0.781615448	0.054267	VAV1	Bos taurus vav guanine nucleotide exchange factor 1 (VAV1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078074]
ENSBTAG000000003018	0.966031621	0.054267	FSTL3	Bos taurus follistatin like 3 (FSTL3), mRNA. [Source:RefSeq mRNA;Acc:NM_001075710]
ENSBTAG000000002640	-0.700739267	0.054283	KALRN	kalirin RhoGEF kinase [Source:VGNC Symbol;Acc:VGNC:30389]
ENSBTAG00000017007	0.951957832	0.05445	TRIB3	Bos taurus tribbles pseudokinase 3 (TRIB3), mRNA. [Source:RefSeq mRNA;Acc:NM_001076103]
ENSBTAG00000000782	-0.589100527	0.054529	KDR	kinase insert domain receptor [Source:VGNC Symbol;Acc:VGNC:30535]
ENSBTAG000000003021	-0.534375693	0.054529	SP1	Bos taurus Sp1 transcription factor (SP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078027]

ENSBTAG00000001288	0.521573113	0.054712	MAOB	Bos taurus monoamine oxidase B (MAOB), mRNA. [Source:RefSeq mRNA;Acc:NM_177944]
ENSBTAG000000031715	-0.455901269	0.054784	PCMTD2	Bos taurus protein-L-isoaspartate (D-aspartate) O- methyltransferase domain containing 2 (PCMTD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001024479]
ENSBTAG000000013093	0.415040526	0.054929	ALDH3B1	Bos taurus aldehyde dehydrogenase 3 family member B1 (ALDH3B1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075518]
ENSBTAG00000004449	-1.108801846	0.054929	DGKE	Bos taurus diacylglycerol kinase epsilon (DGKE), mRNA. [Source:RefSeq mRNA;Acc:NM_001192930]
ENSBTAG000000016550	-5.646796969	0.054929	MAEL	Bos taurus maelstrom spermatogenic transposon silencer (MAEL), mRNA. [Source:RefSeq mRNA;Acc:NM_001038193]
ENSBTAG000000054051	-3.151719038	0.055124	-	-
ENSBTAG000000001503	-3.648673692	0.055159	TRIM72	tripartite motif containing 72 [Source:NCBI gene;Acc:528804]
ENSBTAG000000014809	0.852110601	0.055325	ANXA6	annexin A6 [Source:VGNC Symbol;Acc:VGNC:25968]
ENSBTAG000000005154	-1.011861238	0.055489	APCDD1	APC down-regulated 1 [Source:VGNC Symbol;Acc:VGNC:26007]
ENSBTAG000000000859	-1.279092777	0.055489	SLC38A1	solute carrier family 38 member 1 [Source:VGNC Symbol;Acc:VGNC:34846]
ENSBTAG000000017798	0.432354377	0.055506	ERH	ERH, mRNA splicing and mitosis factor [Source:VGNC Symbol;Acc:VGNC:28581]
ENSBTAG000000004625	0.558072018	0.055669	PYGB	Bos taurus glycogen phosphorylase B (PYGB), mRNA. [Source:RefSeq mRNA;Acc:NM_001035270]
ENSBTAG000000048246	-1.079902978	0.055669	DPP4	Bos taurus dipeptidyl peptidase 4 (DPP4), mRNA. [Source:RefSeq mRNA;Acc:NM_174039]
ENSBTAG000000006515	1.206243996	0.055732	ESPN	espin [Source:HGNC Symbol;Acc:HGNC:13281]
ENSBTAG000000019733	-0.686133776	0.055732	ADGRL4	adhesion G protein-coupled receptor L4 [Source:VGNC Symbol;Acc:VGNC:25672]

ENSBTAG00000015085	0.855847002	0.055732	CLIC3	Bos taurus chloride intracellular channel 3 (CLIC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001100301]
ENSBTAG00000037937	-1.215714134	0.055737	-	interferon-induced very large GTPase 1-like [Source:NCBI gene;Acc:101903126]
ENSBTAG00000008612	-0.47547301	0.055889	C1R	Bos taurus complement C1r (C1R), mRNA. [Source:RefSeq mRNA;Acc:NM_001034407]
ENSBTAG00000009314	1.264541236	0.056026	FYB2	FYN binding protein 2 [Source:VGNC Symbol;Acc:VGNC:29161]
ENSBTAG00000008057	1.233718914	0.056058	PARVG	parvin gamma [Source:VGNC Symbol;Acc:VGNC:32591]
ENSBTAG00000020750	-1.218347201	0.056058	AFF2	Bos taurus AF4/FMR2 family member 2 (AFF2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191543]
ENSBTAG00000005145	-0.672683402	0.056078	PEAK1	pseudopodium enriched atypical kinase 1 [Source:VGNC Symbol;Acc:VGNC:32733]
ENSBTAG00000016414	0.753541756	0.056078	VDR	vitamin D receptor [Source:VGNC Symbol;Acc:VGNC:36784]
ENSBTAG00000013489	0.488049957	0.056102	CYP27A1	cytochrome P450 family 27 subfamily A member 1 [Source:HGNC Symbol;Acc:HGNC:2605]
ENSBTAG00000019414	-0.561017392	0.056107	CLK4	Bos taurus CDC like kinase 4 (CLK4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192988]
ENSBTAG00000020223	-3.287581951	0.056173	CASQ1	Bos taurus calsequestrin 1 (CASQ1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077877]
novel.1152	-3.116982062	0.056173	-	-
ENSBTAG00000016742	1.109345698	0.056173	WFDC3	Bos taurus WAP four-disulfide core domain 3 (WFDC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001104966]
ENSBTAG00000013464	-0.828244044	0.056254	CEP97	Bos taurus centrosomal protein 97 (CEP97), mRNA. [Source:RefSeq mRNA;Acc:NM_001192424]
ENSBTAG00000020535	0.965714544	0.056266	PYCARD	Bos taurus PYD and CARD domain containing (PYCARD), mRNA. [Source:RefSeq mRNA;Acc:NM_174730]
ENSBTAG00000049637	-1.710081243	0.056982	-	-

ENSBTAG00000004974	-1.204375098	0.056987	ZDHHC23	Bos taurus zinc finger DHHC-type containing 23 (ZDHHC23), mRNA. [Source:RefSeq mRNA;Acc:NM_001192314]
ENSBTAG00000003826	-1.170798449	0.057019	SCN1B	sodium voltage-gated channel beta subunit 1 [Source:VGNC Symbol;Acc:VGNC:34346]
ENSBTAG000000024199	-0.527582728	0.057059	KMT2C	lysine methyltransferase 2C [Source:VGNC Symbol;Acc:VGNC:30692]
ENSBTAG000000027629	-2.491210081	0.057146	-	ankyrin 1 [Source:NCBI gene;Acc:353108]
ENSBTAG000000026320	0.467200154	0.057364	VPS28	Bos taurus VPS28, ESCRT-I subunit (VPS28), mRNA. [Source:RefSeq mRNA;Acc:NM_001035504]
ENSBTAG000000007661	0.840343419	0.057392	MYO1F	myosin IF [Source:VGNC Symbol;Acc:VGNC:31821]
ENSBTAG000000015767	0.591536621	0.057511	RNF10	Bos taurus ring finger protein 10 (RNF10), mRNA. [Source:RefSeq mRNA;Acc:NM_001076869]
ENSBTAG000000003956	-0.880076348	0.057693	SGCA	sarcoglycan alpha [Source:VGNC Symbol;Acc:VGNC:34535]
ENSBTAG000000016498	-0.813436196	0.057693	PHACTR2	phosphatase and actin regulator 2 [Source:VGNC Symbol;Acc:VGNC:32805]
ENSBTAG000000054220	2.029552351	0.057777	-	-
ENSBTAG000000000342	0.842317039	0.057792	PLOD3	Bos taurus procollagen-lysine,2-oxoglutarate 5-dioxygenase 3 (PLOD3), mRNA. [Source:RefSeq mRNA;Acc:NM_001193255]
ENSBTAG000000014250	-0.807288066	0.057799	ZC3HAV1L	Bos taurus zinc finger CCCH-type containing, antiviral 1 like (ZC3HAV1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001192577]
ENSBTAG000000021978	-1.076358059	0.057799	PARVB	Bos taurus parvin beta (PARVB), mRNA. [Source:RefSeq mRNA;Acc:NM_001102299]
ENSBTAG000000019076	0.865479135	0.057928	PAK6	Bos taurus p21 (RAC1) activated kinase 6 (PAK6), mRNA. [Source:RefSeq mRNA;Acc:NM_001192198]
ENSBTAG000000020855	-0.643237951	0.058255	PTPN4	protein tyrosine phosphatase, non-receptor type 4 [Source:VGNC Symbol;Acc:VGNC:33539]

ENSBTAG00000013319	-3.372338413	0.058257	SMCO1	single-pass membrane protein with coiled-coil domains 1 [Source:VGNC Symbol;Acc:VGNC:35005]
ENSBTAG00000050986	-0.503734578	0.058468	PXDN	peroxidasin [Source:NCBI gene;Acc:515860]
ENSBTAG00000002885	0.963228762	0.058468	MSR1	Bos taurus macrophage scavenger receptor 1 (MSR1), transcript variant 2, mRNA. [Source:RefSeq mRNA;Acc:NM_174113]
ENSBTAG00000053425	0.655992938	0.058487	TMEM203	transmembrane protein 203 [Source:HGNC Symbol;Acc:HGNC:28217]
ENSBTAG00000004749	-0.477614125	0.058487	NEK4	Bos taurus NIMA related kinase 4 (NEK4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101944]
ENSBTAG00000003682	1.957969479	0.058496	DNAJB13	DnaJ heat shock protein family (Hsp40) member B13 [Source:VGNC Symbol;Acc:VGNC:54630]
ENSBTAG00000020089	-0.474605964	0.05863	USP32	ubiquitin specific peptidase 32 [Source:VGNC Symbol;Acc:VGNC:36722]
ENSBTAG00000007806	0.386088075	0.05863	MTPN	Bos taurus myotrophin (MTPN), mRNA. [Source:RefSeq mRNA;Acc:NM_203362]
ENSBTAG00000002023	-2.937068849	0.05863	NOS1	nitric oxide synthase 1 [Source:VGNC Symbol;Acc:VGNC:32172]
novel.1176	-0.593048519	0.058749	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000004364	0.734502585	0.058761	THNSL2	Bos taurus threonine synthase like 2 (THNSL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192844]
ENSBTAG00000018053	0.465721543	0.0589	RAB22A	Bos taurus RAB22A, member RAS oncogene family (RAB22A), mRNA. [Source:RefSeq mRNA;Acc:NM_001099165]
ENSBTAG00000051752	-0.944459112	0.059043	-	-
ENSBTAG00000055207	1.206859601	0.059101	SCD	Bos taurus stearoyl-CoA desaturase (SCD), mRNA. [Source:RefSeq mRNA;Acc:NM_173959]
ENSBTAG00000009788	0.818006212	0.059101	-	acyl-CoA thioesterase 2 [Source:NCBI gene;Acc:785383]
ENSBTAG00000013882	0.475944124	0.059168	CHMP2A	Bos taurus charged multivesicular body protein 2A (CHMP2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001034550]

ENSBTAG00000006546	-1.181507701	0.05919	-	Glutathione S-transferase A2 [Source:UniProtKB/Swiss-Prot;Acc:O18879]
ENSBTAG00000033008	-3.437895425	0.05919	MYOZ1	Bos taurus myozenin 1 (MYOZ1), mRNA. [Source:RefSeq mRNA;Acc:NM_174397]
ENSBTAG00000000079	-0.766678687	0.05921	CCSAP	centriole, cilia and spindle associated protein [Source:VGNC Symbol;Acc:VGNC:26992]
ENSBTAG00000020215	0.500044878	0.05925	EXOC2	exocyst complex component 2 [Source:VGNC Symbol;Acc:VGNC:28644]
ENSBTAG00000009080	-3.564134846	0.059335	ITGB6	integrin subunit beta 6 [Source:VGNC Symbol;Acc:VGNC:30331]
ENSBTAG00000009704	-1.793022287	0.059426	CECR2	CECR2, histone acetyl-lysine reader [Source:VGNC Symbol;Acc:VGNC:49053]
ENSBTAG00000040333	0.548462001	0.059597	QDPR	Bos taurus quinoid dihydropteridine reductase (QDPR), mRNA. [Source:RefSeq mRNA;Acc:NM_001076492]
ENSBTAG00000000347	0.521866975	0.059597	RHOG	Bos taurus ras homolog family member G (RHOG), mRNA. [Source:RefSeq mRNA;Acc:NM_001080305]
ENSBTAG00000001165	-0.74907666	0.059597	AIFM2	Bos taurus apoptosis inducing factor, mitochondria associated 2 (AIFM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001314031]
ENSBTAG00000048485	0.655901512	0.059699	TUBB2A	tubulin beta 2A class IIa [Source:NCBI gene;Acc:100295973]
ENSBTAG00000012739	0.769893909	0.05971	C1QBP	complement C1q binding protein [Source:VGNC Symbol;Acc:VGNC:26618]
ENSBTAG00000006962	0.543820662	0.05971	NFS1	Bos taurus NFS1, cysteine desulfurase (NFS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099001]
ENSBTAG00000001735	-1.764816719	0.05971	ADAM11	ADAM metallopeptidase domain 11 [Source:VGNC Symbol;Acc:VGNC:55768]
ENSBTAG00000008543	0.576827831	0.059774	GTF2H5	Bos taurus general transcription factor IIH subunit 5 (GTF2H5), mRNA. [Source:RefSeq mRNA;Acc:NM_001040537]
ENSBTAG00000046746	0.632229188	0.059774	COASY	Coenzyme A synthase [Source:VGNC Symbol;Acc:VGNC:50148]

ENSBTAG00000011580	0.519795094	0.059876	DAG1	dystroglycan 1 [Source:VGNC Symbol;Acc:VGNC:27871] Bos taurus membrane bound O-acyltransferase domain containing 7 (MBOAT7), mRNA. [Source:RefSeq mRNA;Acc:NM_001075152]
ENSBTAG00000015908 novel.853	0.634606208 -2.457207167	0.059876 0.059876	MBOAT7 -	-
ENSBTAG00000021323	0.826524213	0.059961	AGFG1	Bos taurus ArfGAP with FG repeats 1 (AGFG1), mRNA. [Source:RefSeq mRNA;Acc:NM_001038171]
ENSBTAG00000010909	-0.775644186	0.059961	SLC30A1	solute carrier family 30 member 1 [Source:VGNC Symbol;Acc:VGNC:34805]
ENSBTAG00000005333	-3.423030319	0.059961	MB	myoglobin [Source:VGNC Symbol;Acc:VGNC:31270]
ENSBTAG00000001183	-2.450014432	0.059961	KLHL33	Bos taurus kelch like family member 33 (KLHL33), mRNA. [Source:RefSeq mRNA;Acc:NM_001166652]
ENSBTAG00000011349	0.58852175	0.059961	CDH24	cadherin 24 [Source:VGNC Symbol;Acc:VGNC:27101]
ENSBTAG00000013270	0.574615478	0.059961	TTC19	tetratricopeptide repeat domain 19 [Source:VGNC Symbol;Acc:VGNC:36458]
ENSBTAG00000020605	-1.901230221	0.059961	SMTNL2	smoothelin like 2 [Source:VGNC Symbol;Acc:VGNC:35037]
ENSBTAG00000027320	1.698778505	0.059961	KCNB1	Bos taurus potassium voltage-gated channel subfamily B member 1 (KCNB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192269]
ENSBTAG00000008112	-0.591255471	0.059961	SHPRH	SNF2 histone linker PHD RING helicase [Source:VGNC Symbol;Acc:VGNC:50618]
ENSBTAG00000018358	-2.449721984	0.059961	STAC3	SH3 and cysteine rich domain 3 [Source:VGNC Symbol;Acc:VGNC:35352]
ENSBTAG00000021823	-3.67641531	0.059961	HJV	hemojuvelin BMP co-receptor [Source:VGNC Symbol;Acc:VGNC:52785]
ENSBTAG00000042688	-1.219996867	0.059961	RF00264	small nucleolar RNA, H/ACA box 64 [Source:HGNC Symbol;Acc:HGNC:10221]
ENSBTAG00000003712 novel.1273	0.83602413 -1.375000467	0.059961 0.059961	FAM89B -	family with sequence similarity 89 member B [Source:VGNC Symbol;Acc:VGNC:28843] -

ENSBTAG00000012467	0.755403074	0.059961	MASP1	Bos taurus mannan binding lectin serine peptidase 1 (MASP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076968]
ENSBTAG00000017631	0.592647573	0.060117	GFER	growth factor, augments liver regeneration [Source:VGNC Symbol;Acc:VGNC:29324]
ENSBTAG00000017508 novel.156	-1.099520763 -3.741896958	0.060222 0.060222	CYSLTR2 -	Bos taurus cysteinyl leukotriene receptor 2 (CYSLTR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102240] -
ENSBTAG00000038251	-0.657962908	0.060222	NAA16	N(alpha)-acetyltransferase 16, NatA auxiliary subunit [Source:VGNC Symbol;Acc:VGNC:53828]
ENSBTAG00000027654	-0.827564592	0.060226	EIF4EBP1	Bos taurus eukaryotic translation initiation factor 4E binding protein 1 (EIF4EBP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077893]
ENSBTAG00000020047	0.608162988	0.06023	MON1A	MON1 homolog A, secretory trafficking associated [Source:VGNC Symbol;Acc:VGNC:31552]
ENSBTAG00000015919	1.090901263	0.060293	PARM1	Bos taurus prostate androgen-regulated mucin-like protein 1 (PARM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075771]
ENSBTAG00000021685	-3.511607608	0.060293	EEF1A2	eukaryotic translation elongation factor 1 alpha 2 [Source:VGNC Symbol;Acc:VGNC:50164]
ENSBTAG00000002964	-3.543497266	0.060293	TXLNB	Bos taurus taxilin beta (TXLNB), mRNA. [Source:RefSeq mRNA;Acc:NM_001102051]
ENSBTAG00000016956	0.34856373	0.060296	GANAB	Bos taurus glucosidase II alpha subunit (GANAB), mRNA. [Source:RefSeq mRNA;Acc:NM_001205777]
ENSBTAG00000005039	0.463098151	0.060389	ARAF	Bos taurus A-Raf proto-oncogene, serine/threonine kinase (ARAF), mRNA. [Source:RefSeq mRNA;Acc:NM_001014964]
ENSBTAG00000020835	0.749148877	0.060546	KIAA0513	KIAA0513 [Source:VGNC Symbol;Acc:VGNC:30553]
ENSBTAG00000011658	0.784033197	0.060546	PTPN18	protein tyrosine phosphatase, non-receptor type 18 [Source:VGNC Symbol;Acc:VGNC:33533]

ENSBTAG00000001335	-0.605905836	0.060555	GHR	Bos taurus growth hormone receptor (GHR), mRNA. [Source:RefSeq mRNA;Acc:NM_176608]
ENSBTAG00000008981	-0.824983238	0.060568	USP49	ubiquitin specific peptidase 49 [Source:VGNC Symbol;Acc:VGNC:36734]
ENSBTAG000000015100	0.50341771	0.060568	ATP6V0E1	Bos taurus ATPase H ⁺ transporting V0 subunit e1 (ATP6V0E1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034050]
ENSBTAG00000006708	-0.47150183	0.060568	ARIH1	Bos taurus ariadne RBR E3 ubiquitin protein ligase 1 (ARIH1), mRNA. [Source:RefSeq mRNA;Acc:NM_001081714]
ENSBTAG00000005364	0.590486331	0.060716	HMBS	Bos taurus hydroxymethylbilane synthase (HMBS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046207]
novel.333	-2.528100169	0.060716	-	-
ENSBTAG000000013358	-0.352304191	0.060716	RPS23	Bos taurus ribosomal protein S23 (RPS23), mRNA. [Source:RefSeq mRNA;Acc:NM_001034690]
ENSBTAG000000054135	2.70027173	0.060829	-	-
ENSBTAG00000001005	-0.739951788	0.060873	ZNF280B	Bos taurus zinc finger protein 280B (ZNF280B), mRNA. [Source:RefSeq mRNA;Acc:NM_001077935]
ENSBTAG000000016977	0.668016431	0.060873	FUNDC2	FUN14 domain containing 2 [Source:VGNC Symbol;Acc:VGNC:29144]
ENSBTAG000000012644	0.500494027	0.060916	UROD	Bos taurus uroporphyrinogen decarboxylase (UROD), mRNA. [Source:RefSeq mRNA;Acc:NM_001205558]
ENSBTAG000000018767	-3.328149486	0.061015	RTP3	receptor transporter protein 3 [Source:VGNC Symbol;Acc:VGNC:54478]
ENSBTAG00000002292	-0.660662604	0.06109	SMARCA1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 1 [Source:VGNC Symbol;Acc:VGNC:34985]
ENSBTAG000000011677	1.299577744	0.061095	HIST1H1C	Histone H1.2 [Source:UniProtKB/Swiss-Prot;Acc:P02253]
ENSBTAG00000000442	-0.555707348	0.061187	RBP4	retinol binding protein 4 [Source:VGNC Symbol;Acc:VGNC:33815]

ENSBTAG00000006824	-0.525698676	0.061248	APPL1	Bos taurus adaptor protein, phosphotyrosine interacting with PH domain and leucine zipper 1 (APPL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099003]
ENSBTAG00000001078	-2.150701349	0.061248	SRL	sarcalumenin [Source:NCBI gene;Acc:513912]
ENSBTAG00000018254	-0.403975778	0.061306	CDKN1B	Bos taurus cyclin dependent kinase inhibitor 1B (CDKN1B), mRNA. [Source:RefSeq mRNA;Acc:NM_001100346]
ENSBTAG00000049435	-0.90739684	0.061306	C21H14orf132	Bos taurus chromosome 21 C14orf132 homolog (C21H14orf132), mRNA. [Source:RefSeq mRNA;Acc:NM_001252510]
ENSBTAG00000021358	1.183382625	0.06131	BLNK	Bos taurus B cell linker (BLNK), mRNA. [Source:RefSeq mRNA;Acc:NM_001046054]
ENSBTAG00000039161	0.430619269	0.061321	ALDH3A2	Bos taurus aldehyde dehydrogenase 3 family member A2 (ALDH3A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101984]
ENSBTAG00000000308	-0.521920135	0.061345	ITCH	itchy E3 ubiquitin protein ligase [Source:VGNC Symbol;Acc:VGNC:30307]
ENSBTAG00000007169	1.029569635	0.061345	P2RX1	purinergic receptor P2X 1 [Source:VGNC Symbol;Acc:VGNC:32517]
novel.634	-1.205615859	0.061345	-	-
ENSBTAG00000000590	1.092188196	0.061446	POLE	Bos taurus DNA polymerase epsilon, catalytic subunit (POLE), mRNA. [Source:RefSeq mRNA;Acc:NM_001191429]
ENSBTAG00000004796	-0.819894337	0.061446	GRP	gastrin releasing peptide [Source:VGNC Symbol;Acc:VGNC:29664]
ENSBTAG00000012109	3.714756671	0.061543	EDN3	Bos taurus endothelin 3 (EDN3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101979]
ENSBTAG00000051252	-1.950269295	0.061691	-	-
ENSBTAG00000052404	-2.516272635	0.061757	-	-
ENSBTAG00000002393	0.420850011	0.061812	C23H6orf89	chromosome 23 C6orf89 homolog [Source:VGNC Symbol;Acc:VGNC:52681]
ENSBTAG00000018784	0.580652683	0.062024	CTSZ	Bos taurus cathepsin Z (CTSZ), mRNA. [Source:RefSeq mRNA;Acc:NM_001077835]

ENSBTAG00000020504	0.519948999	0.062024	CDK2AP1	Bos taurus cyclin dependent kinase 2 associated protein 1 (CDK2AP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076369]
ENSBTAG00000001740	0.878776319	0.062024	HAPLN3	Bos taurus hyaluronan and proteoglycan link protein 3 (HAPLN3), mRNA. [Source:RefSeq mRNA;Acc:NM_001098981]
ENSBTAG00000017733	0.904415537	0.062024	CA2	Bos taurus carbonic anhydrase II (CA2), mRNA. [Source:RefSeq mRNA;Acc:NM_178572]
ENSBTAG00000008977	0.62002421	0.062316	TOMM6	Bos taurus translocase of outer mitochondrial membrane 6 (TOMM6), mRNA. [Source:RefSeq mRNA;Acc:NM_001113718]
ENSBTAG00000020406	-0.693015567	0.062316	GPC3	glypican 3 [Source:VGNC Symbol;Acc:VGNC:29525]
ENSBTAG00000006253	-1.590563842	0.062316	FLNC	filamin C [Source:VGNC Symbol;Acc:VGNC:29035]
novel.360	2.343533899	0.062318	-	-
ENSBTAG00000020394	0.983989342	0.062318	TNFAIP8L2	Bos taurus TNF alpha induced protein 8 like 2 (TNFAIP8L2), mRNA. [Source:RefSeq mRNA;Acc:NM_001034389]
ENSBTAG00000008309	0.634742975	0.062599	ATP13A2	Bos taurus ATPase cation transporting 13A2 (ATP13A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192271]
ENSBTAG00000014150	0.836743413	0.062717	C11H9orf16	Bos taurus chromosome 11 C9orf16 homolog (C11H9orf16), mRNA. [Source:RefSeq mRNA;Acc:NM_001195050]
novel.309	-0.611167001	0.062816	-	-
ENSBTAG00000010119	1.502488984	0.06297	ALDH1A2	aldehyde dehydrogenase 1 family member A2 [Source:VGNC Symbol;Acc:VGNC:25809]
ENSBTAG00000045754	0.851152748	0.06297	SMIM1	Bos taurus small integral membrane protein 1 (Vel blood group) (SMIM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001163727]
ENSBTAG00000016085	0.570717149	0.06297	IRAK1	interleukin 1 receptor associated kinase 1 [Source:VGNC Symbol;Acc:VGNC:30264]
ENSBTAG00000019831	0.740957477	0.062977	MRPS11	Bos taurus mitochondrial ribosomal protein S11 (MRPS11), mRNA. [Source:RefSeq mRNA;Acc:NM_001035078]

ENSBTAG00000002596	1.282307178	0.062977	VSTM1	Bos taurus V-set and transmembrane domain containing 1 (VSTM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001101274]
ENSBTAG00000005534	-3.041405828	0.062994	ENO3	enolase 3 [Source:VGNC Symbol;Acc:VGNC:28498]
ENSBTAG00000018252	-0.566478011	0.063174	ARRDC4	arrestin domain containing 4 [Source:VGNC Symbol;Acc:VGNC:26174]
ENSBTAG00000049306	0.798448097	0.063177	MSRB1	Bos taurus methionine sulfoxide reductase B1 (MSRB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034810]
ENSBTAG00000014169	-1.553185928	0.063234	PCDH19	protocadherin 19 [Source:VGNC Symbol;Acc:VGNC:32620]
novel.931	-0.467668179	0.063234	-	-
ENSBTAG00000009761	0.38045871	0.063471	ACTR2	Bos taurus ARP2 actin related protein 2 homolog (ACTR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001102213]
ENSBTAG00000011248	-0.439571331	0.063471	MSANTD2	Myb/SANT DNA binding domain containing 2 [Source:VGNC Symbol;Acc:VGNC:31689]
ENSBTAG00000017846	-0.683161309	0.06354	F11R	Bos taurus F11 receptor (F11R), mRNA. [Source:RefSeq mRNA;Acc:NM_174095]
ENSBTAG00000021231	-0.629636002	0.06371	KCTD2	potassium channel tetramerization domain containing 2 [Source:VGNC Symbol;Acc:VGNC:30509]
ENSBTAG00000000533	-1.690479987	0.06371	ZNF684	zinc finger protein 684 [Source:NCBI gene;Acc:112441496]
ENSBTAG00000025258	3.0077609	0.063881	-	keratin-associated protein 5-1 [Source:NCBI gene;Acc:515676]
ENSBTAG00000004263	-1.508981698	0.063945	ATP6V0A4	Bos taurus ATPase H ⁺ transporting V0 subunit a4 (ATP6V0A4), mRNA. [Source:RefSeq mRNA;Acc:NM_001205851]
ENSBTAG00000021846	2.277306611	0.063979	CELSR3	Bos taurus cadherin EGF LAG seven-pass G-type receptor 3 (CELSR3), mRNA. [Source:RefSeq mRNA;Acc:NM_001205337]
ENSBTAG00000016206	-0.606624153	0.063979	MAOA	Bos taurus monoamine oxidase A (MAOA), mRNA. [Source:RefSeq mRNA;Acc:NM_181014]

ENSBTAG00000010395	-0.50273758	0.063979	DOCK9	Bos taurus dedicator of cytokinesis 9 (DOCK9), mRNA. [Source:RefSeq mRNA;Acc:NM_001193099]
ENSBTAG00000009711	0.535692734	0.064222	RPA1	replication protein A1 [Source:VGNC Symbol;Acc:VGNC:34094]
ENSBTAG00000016133	0.654770742	0.064222	MRPS7	mitochondrial ribosomal protein S7 [Source:VGNC Symbol;Acc:VGNC:31677]
ENSBTAG00000004588	1.570627589	0.06428	KCNN4	Bos taurus potassium calcium-activated channel subfamily N member 4 (KCNN4), mRNA. [Source:RefSeq mRNA;Acc:NM_001076905]
ENSBTAG00000017509	-3.806091999	0.06428	MYPN	myopalladin [Source:VGNC Symbol;Acc:VGNC:31843]
ENSBTAG00000054557	2.424728342	0.06428	-	-
ENSBTAG00000006491	-1.13127478	0.06428	AGL	Bos taurus amylo-alpha-1, 6-glucosidase, 4-alpha-glucanotransferase (AGL), mRNA. [Source:RefSeq mRNA;Acc:NM_001192471]
ENSBTAG00000003514	-0.719755982	0.06428	HSF4	Bos taurus heat shock transcription factor 4 (HSF4), mRNA. [Source:RefSeq mRNA;Acc:NM_001191202]
ENSBTAG00000046514	0.723480412	0.06428	ASMTL	acetylserotonin O-methyltransferase like [Source:VGNC Symbol;Acc:VGNC:26215]
ENSBTAG00000008105	0.579962946	0.064329	RBM38	Bos taurus RNA binding motif protein 38 (RBM38), mRNA. [Source:RefSeq mRNA;Acc:NM_001206023]
ENSBTAG00000052965	-0.762084351	0.064422	-	-
ENSBTAG00000007840	0.718392019	0.064422	HMGCR	Bos taurus 3-hydroxy-3-methylglutaryl-CoA reductase (HMGCR), mRNA. [Source:RefSeq mRNA;Acc:NM_001105613]
novel.622	1.505248871	0.064559	-	-
ENSBTAG00000049003	2.541693794	0.064638	-	-
ENSBTAG00000000415	-0.495695836	0.064638	ERBIN	Bos taurus erbb2 interacting protein (ERBIN), mRNA. [Source:RefSeq mRNA;Acc:NM_001206153]
ENSBTAG00000014162	1.269123609	0.064638	ACKR2	Bos taurus atypical chemokine receptor 2 (ACKR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001015581]
ENSBTAG00000050675	0.835158688	0.064638	-	-

ENSBTAG00000018851	-0.543982785	0.064638	MYCBP2	Bos taurus MYC binding protein 2, E3 ubiquitin protein ligase (MYCBP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192817]
ENSBTAG00000053626	-4.316563448	0.064694	-	-
ENSBTAG00000017922	0.466896928	0.064723	DOLPP1	Bos taurus dolichyldiphosphatase 1 (DOLPP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192041]
ENSBTAG00000008705	0.806543439	0.064827	CABLES1	Cdk5 and Abl enzyme substrate 1 [Source:VGNC Symbol;Acc:VGNC:26664]
ENSBTAG00000005576	0.858466711	0.064827	CLEC11A	Bos taurus C-type lectin domain containing 11A (CLEC11A), mRNA. [Source:RefSeq mRNA;Acc:NM_001098054]
ENSBTAG00000015894	0.605493525	0.065416	WVOX	WW domain containing oxidoreductase [Source:VGNC Symbol;Acc:VGNC:36977]
ENSBTAG00000032657	-0.882816041	0.065416	TEAD1	TEA domain transcription factor 1 [Source:VGNC Symbol;Acc:VGNC:35724]
ENSBTAG00000015920	0.516772143	0.065416	TMEM147	transmembrane protein 147 [Source:VGNC Symbol;Acc:VGNC:35978]
ENSBTAG00000020518	0.559870408	0.065416	PARK7	Bos taurus Parkinsonism associated deglycase (PARK7), mRNA. [Source:RefSeq mRNA;Acc:NM_001015572]
ENSBTAG00000009846	0.529834192	0.065542	MTHFD1L	Bos taurus methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1 like (MTHFD1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001076018]
ENSBTAG00000026403	-0.431179461	0.065547	CREBBP	Bos taurus CREB binding protein (CREBBP), mRNA. [Source:RefSeq mRNA;Acc:NM_001164022]
ENSBTAG00000015124	-0.422229252	0.065816	ARGLU1	arginine and glutamate rich 1 [Source:VGNC Symbol;Acc:VGNC:26072]
ENSBTAG00000005697	3.334296466	0.065857	MDGA2	MAM domain containing glycosylphosphatidylinositol anchor 2 [Source:VGNC Symbol;Acc:VGNC:31332]
ENSBTAG00000005519	-0.490405018	0.065909	RNF38	Bos taurus ring finger protein 38 (RNF38), mRNA. [Source:RefSeq mRNA;Acc:NM_001034581]
ENSBTAG00000030335	0.704084725	0.066199	ALDH4A1	Bos taurus aldehyde dehydrogenase 4 family member A1 (ALDH4A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105646]

ENSBTAG00000022158	-2.834867096	0.066258	TNNT3	troponin T3, fast skeletal type [Source:VGNC Symbol;Acc:VGNC:36196]
ENSBTAG00000007210	-1.815818718	0.066258	RBFOX1	RNA binding fox-1 homolog 1 [Source:VGNC Symbol;Acc:VGNC:33777]
ENSBTAG00000000812	0.927054564	0.066258	CD300A	CD300a molecule [Source:NCBI gene;Acc:516915]
ENSBTAG00000018854	0.470369335	0.066322	SOD1	superoxide dismutase 1 [Source:NCBI gene;Acc:281495]
ENSBTAG00000036367	-1.301582629	0.066347	-	-
novel.872	0.565749018	0.066774	-	-
ENSBTAG00000031561	0.725781368	0.06679	RSRC1	arginine and serine rich coiled-coil 1 [Source:VGNC Symbol;Acc:VGNC:53602]
ENSBTAG00000012067	-0.496431416	0.06679	EPG5	ectopic P-granules autophagy protein 5 homolog [Source:VGNC Symbol;Acc:VGNC:28531]
ENSBTAG00000048958	-0.582180493	0.06679	-	StAR related lipid transfer domain containing 9 [Source:NCBI gene;Acc:524130]
ENSBTAG00000011589	-0.683216945	0.06679	CDC14B	cell division cycle 14B [Source:VGNC Symbol;Acc:VGNC:56939]
ENSBTAG00000007666	-1.232072322	0.06679	IGF2BP2	insulin like growth factor 2 mRNA binding protein 2 [Source:VGNC Symbol;Acc:VGNC:30080]
ENSBTAG00000026369	0.568296519	0.066877	ENC1	Bos taurus ectodermal-neural cortex 1 (ENC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078067]
ENSBTAG00000010135	0.588610067	0.067042	TMEM189	Bos taurus transmembrane protein 189 (TMEM189), mRNA. [Source:RefSeq mRNA;Acc:NM_001100315]
ENSBTAG00000003345	-0.629086585	0.067042	FAT4	FAT atypical cadherin 4 [Source:VGNC Symbol;Acc:VGNC:28877]
ENSBTAG00000009709	-0.519765713	0.067042	TAF5	Bos taurus TATA-box binding protein associated factor 5 (TAF5), mRNA. [Source:RefSeq mRNA;Acc:NM_001191478]
ENSBTAG00000014782	0.629803327	0.067042	STAB1	Bos taurus stabilin 1 (STAB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001205570]
ENSBTAG00000013096	0.645587069	0.067048	UNC119	Bos taurus unc-119 lipid binding chaperone (UNC119), mRNA. [Source:RefSeq mRNA;Acc:NM_001034645]

ENSBTAG00000019915	0.413523539	0.067048	GSN	Bos taurus gelsolin (GSN), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001113284]
ENSBTAG00000000638	1.021104505	0.067048	CDT1	chromatin licensing and DNA replication factor 1 [Source:VGNC Symbol;Acc:VGNC:27158]
ENSBTAG00000025443	-0.798068128	0.067072	FNIP1	folliculin interacting protein 1 [Source:VGNC Symbol;Acc:VGNC:29068]
ENSBTAG00000009841	0.591445318	0.067106	CNDP2	carnosine dipeptidase 2 [Source:VGNC Symbol;Acc:VGNC:27494]
ENSBTAG00000031814	0.776692247	0.067241	SDS	serine dehydratase [Source:VGNC Symbol;Acc:VGNC:34399]
ENSBTAG00000055237	-1.681591784	0.067242	-	-
ENSBTAG00000011692	-3.934012426	0.067242	C25H16orf45	Bos taurus chromosome 25 C16orf45 homolog (C25H16orf45), mRNA. [Source:RefSeq mRNA;Acc:NM_001078077]
ENSBTAG00000012037	0.442768399	0.067242	DGUOK	Bos taurus deoxyguanosine kinase (DGUOK), mRNA. [Source:RefSeq mRNA;Acc:NM_001014888]
ENSBTAG00000005015	0.594115443	0.067472	SFXN3	Bos taurus sideroflexin 3 (SFXN3), mRNA. [Source:RefSeq mRNA;Acc:NM_001101946]
ENSBTAG00000015182	-1.348258347	0.067472	STARD10	Bos taurus StAR related lipid transfer domain containing 10 (STARD10), mRNA. [Source:RefSeq mRNA;Acc:NM_001192379]
ENSBTAG00000006022	0.963628636	0.067565	ATP6V0E2	Bos taurus ATPase H ⁺ transporting V0 subunit e2 (ATP6V0E2), mRNA. [Source:RefSeq mRNA;Acc:NM_001097574]
ENSBTAG00000020772	0.890818766	0.067687	ARHGAP45	Rho GTPase activating protein 45 [Source:HGNC Symbol;Acc:HGNC:17102]
ENSBTAG00000015786	-3.576221463	0.067841	LRRC39	leucine rich repeat containing 39 [Source:VGNC Symbol;Acc:VGNC:55250]
ENSBTAG00000007211	-2.665776404	0.067894	ASB12	Bos taurus ankyrin repeat and SOCS box containing 12 (ASB12), mRNA. [Source:RefSeq mRNA;Acc:NM_001192225]
ENSBTAG00000052382	1.436752014	0.067894	H2B	histone H2B-like [Source:NCBI gene;Acc:615043]
ENSBTAG00000015361	-0.803806248	0.067944	CNTFR	ciliary neurotrophic factor receptor [Source:VGNC Symbol;Acc:VGNC:27535]

ENSBTAG00000021972	2.132851403	0.067944	DNAH5	dynein axonemal heavy chain 5 [Source:VGNC Symbol;Acc:VGNC:28126]
ENSBTAG00000012280	1.037552384	0.067944	PGLYRP2	peptidoglycan recognition protein 2 [Source:VGNC Symbol;Acc:VGNC:32792]
ENSBTAG00000022150	0.727264215	0.067944	MXRA5	matrix remodeling associated 5 [Source:VGNC Symbol;Acc:VGNC:31774]
ENSBTAG00000004462	-0.882029734	0.068055	NPAS3	neuronal PAS domain protein 3 [Source:HGNC Symbol;Acc:HGNC:19311]
ENSBTAG00000004820	0.612584828	0.068079	POLR2F	RNA polymerase II subunit F [Source:VGNC Symbol;Acc:VGNC:33140]
ENSBTAG00000046977	2.234945922	0.068079	PLA2G2D5	Bos taurus calcium-dependent phospholipase A2 PLA2G2D5 (PLA2G2D5), mRNA. [Source:RefSeq mRNA;Acc:NM_001015888]
ENSBTAG00000002580	0.718252091	0.068163	MYH14	myosin heavy chain 14 [Source:VGNC Symbol;Acc:VGNC:31796]
ENSBTAG00000021970	-3.583477375	0.068163	EYA4	EYA transcriptional coactivator and phosphatase 4 [Source:VGNC Symbol;Acc:VGNC:28673]
ENSBTAG00000008320	0.689877976	0.068163	5-Sep	septin 5 [Source:VGNC Symbol;Acc:VGNC:53921]
ENSBTAG00000021120	-3.397694286	0.068163	SMYD1	SET and MYND domain containing 1 [Source:VGNC Symbol;Acc:VGNC:35042]
ENSBTAG00000002500	0.577260094	0.068186	FBXL15	F-box and leucine rich repeat protein 15 [Source:VGNC Symbol;Acc:VGNC:54431]
ENSBTAG00000017875	0.868163167	0.068404	ARHGAP30	Bos taurus Rho GTPase activating protein 30 (ARHGAP30), mRNA. [Source:RefSeq mRNA;Acc:NM_001191499]
ENSBTAG00000003322	-0.865705404	0.068404	TTL7	tubulin tyrosine ligase like 7 [Source:VGNC Symbol;Acc:VGNC:36495]
ENSBTAG00000014526	0.494334536	0.068404	MOB3A	MOB kinase activator 3A [Source:VGNC Symbol;Acc:VGNC:31544]
ENSBTAG00000015743	-2.08151893	0.068431	GMPR	guanosine monophosphate reductase [Source:VGNC Symbol;Acc:VGNC:29442]
ENSBTAG00000051663	-1.497589933	0.068811	-	-

ENSBTAG00000016450	-2.211185054	0.068811	CDNF	Bos taurus cerebral dopamine neurotrophic factor (CDNF), mRNA. [Source:RefSeq mRNA;Acc:NM_001205769]
ENSBTAG00000020175	0.651198819	0.068811	UBE2K	ubiquitin conjugating enzyme E2 K [Source:VGNC Symbol;Acc:VGNC:36587]
ENSBTAG00000016061	-0.73869445	0.068811	RSAD2	Bos taurus radical S-adenosyl methionine domain containing 2 (RSAD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001045941]
ENSBTAG00000004302	0.907013198	0.068811	NDUFAF5	NADH:ubiquinone oxidoreductase complex assembly factor 5 [Source:VGNC Symbol;Acc:VGNC:31957]
ENSBTAG00000000642	0.589520798	0.06885	INTS1	Bos taurus integrator complex subunit 1 (INTS1), mRNA. [Source:RefSeq mRNA;Acc:NM_001191470]
ENSBTAG00000047166	0.666454343	0.069056	SH2D7	SH2 domain containing 7 [Source:VGNC Symbol;Acc:VGNC:34562]
ENSBTAG00000020829	-0.65233368	0.069056	PTPRK	Bos taurus protein tyrosine phosphatase, receptor type K (PTPRK), mRNA. [Source:RefSeq mRNA;Acc:NM_001191537]
ENSBTAG00000050420	1.308236273	0.069086	-	sialic acid-binding Ig-like lectin 14 [Source:NCBI gene;Acc:512863]
ENSBTAG00000010408	0.826527182	0.069086	IKBKE	Bos taurus inhibitor of nuclear factor kappa B kinase subunit epsilon (IKBKE), mRNA. [Source:RefSeq mRNA;Acc:NM_001046345]
ENSBTAG00000018349	0.779722333	0.069086	IFI30	Bos taurus IFI30, lysosomal thiol reductase (IFI30), mRNA. [Source:RefSeq mRNA;Acc:NM_001101251]
ENSBTAG00000053497	-1.392437826	0.069099	GNLY	granulysin [Source:NCBI gene;Acc:404173]
ENSBTAG00000004368	-0.509992498	0.069099	NFATC3	Bos taurus nuclear factor of activated T cells 3 (NFATC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192831]
ENSBTAG00000052394	-0.757701075	0.069099	-	-
ENSBTAG00000050948	0.537631449	0.069218	NUP62	Bos taurus nucleoporin 62 (NUP62), mRNA. [Source:RefSeq mRNA;Acc:NM_001205519]
ENSBTAG00000019349	-0.559120349	0.069218	SLC6A4	Bos taurus solute carrier family 6 member 4 (SLC6A4), mRNA. [Source:RefSeq mRNA;Acc:NM_174609]

ENSBTAG00000020597	1.664331399	0.069218	FMO3	flavin containing monooxygenase 3 [Source:VGNC Symbol;Acc:VGNC:29051]
ENSBTAG00000004664	0.54351926	0.069218	COQ4	Bos taurus coenzyme Q4 (COQ4), mRNA. [Source:RefSeq mRNA;Acc:NM_001083672]
ENSBTAG00000019317	0.477156551	0.069218	GPS1	G protein pathway suppressor 1 [Source:VGNC Symbol;Acc:VGNC:29612]
ENSBTAG00000006082	0.481230126	0.069382	DNASE2	Bos taurus deoxyribonuclease 2, lysosomal (DNASE2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075127]
ENSBTAG00000005412	-0.548432771	0.0695	NEDD4L	neural precursor cell expressed, developmentally down-regulated 4-like, E3 ubiquitin protein ligase [Source:VGNC Symbol;Acc:VGNC:31983]
ENSBTAG00000001654	-0.678370969	0.0695	SNTB2	syntrophin beta 2 [Source:VGNC Symbol;Acc:VGNC:35084]
ENSBTAG00000016185	0.439300438	0.0695	ENAH	ENAH, actin regulator [Source:HGNC Symbol;Acc:HGNC:18271]
ENSBTAG00000018249	-1.573508248	0.069533	KCNN3	potassium calcium-activated channel subfamily N member 3 [Source:VGNC Symbol;Acc:VGNC:30485]
ENSBTAG00000012653	-2.692274428	0.069672	CAMK2B	calcium/calmodulin dependent protein kinase II beta [Source:VGNC Symbol;Acc:VGNC:26722]
ENSBTAG00000055045	-2.56339415	0.069672	HSPB7	heat shock protein family B (small) member 7 [Source:NCBI gene;Acc:512251]
ENSBTAG00000053244	0.626741836	0.069868	POLR2D	RNA polymerase II subunit D [Source:NCBI gene;Acc:617422]
ENSBTAG00000005178	0.653713923	0.07006	MMAB	Bos taurus metabolism of cobalamin associated B (MMAB), mRNA. [Source:RefSeq mRNA;Acc:NM_001079632]
ENSBTAG00000024105	-0.717787811	0.07006	BCL2L11	BCL2 like 11 [Source:VGNC Symbol;Acc:VGNC:50256]
ENSBTAG00000012020	-0.898161957	0.07006	TRAF5	Bos taurus TNF receptor associated factor 5 (TRAF5), mRNA. [Source:RefSeq mRNA;Acc:NM_001105340]
ENSBTAG00000046664	-0.633340168	0.070115	TSC22D1	TSC22 domain family member 1 [Source:NCBI gene;Acc:510359]

ENSBTAG00000013363	0.425201089	0.070213	CAP1	cyclase associated actin cytoskeleton regulatory protein 1 [Source:VGNC Symbol;Acc:VGNC:26737]
ENSBTAG00000022847	-0.473260489	0.070542	HEATR5A	HEAT repeat containing 5A [Source:VGNC Symbol;Acc:VGNC:29794]
ENSBTAG00000013380	-0.572268039	0.07071	CEP192	centrosomal protein 192 [Source:VGNC Symbol;Acc:VGNC:27199]
ENSBTAG00000004249	-0.801624506	0.071486	TANC2	Bos taurus tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2 (TANC2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192675]
ENSBTAG00000019091	-0.630577001	0.071645	RNPC3	Bos taurus RNA binding region (RNP1, RRM) containing 3 (RNPC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001077117]
ENSBTAG00000033727	-0.705016451	0.071671	RBPMS	Bos taurus RNA binding protein, mRNA processing factor (RBPMS), mRNA. [Source:RefSeq mRNA;Acc:NM_001046535]
ENSBTAG00000002744	1.274932805	0.071671	MUSK	muscle associated receptor tyrosine kinase [Source:VGNC Symbol;Acc:VGNC:31763]
ENSBTAG00000048798	-0.427541384	0.071824	-	-
ENSBTAG00000040338	-0.525381896	0.072091	OBSL1	Bos taurus obscurin-like 1 (OBSL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075491]
ENSBTAG00000017294	2.123258115	0.072134	ORM1	Bos taurus orosomuroid 1 (ORM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001040502]
ENSBTAG00000011744	-0.64108726	0.07227	USP31	ubiquitin specific peptidase 31 [Source:NCBI gene;Acc:786875]
ENSBTAG00000007110	-0.576898713	0.072385	RCOR3	REST corepressor 3 [Source:VGNC Symbol;Acc:VGNC:33836]
ENSBTAG00000002668	-0.895251017	0.072397	ZNF711	Bos taurus zinc finger protein 711 (ZNF711), mRNA. [Source:RefSeq mRNA;Acc:NM_001205925]
ENSBTAG00000014353	0.560020945	0.072627	SRP14	Bos taurus signal recognition particle 14 (SRP14), mRNA. [Source:RefSeq mRNA;Acc:NM_001100350]
ENSBTAG00000005458	0.52781017	0.072627	-	TBC1 domain family member 24 [Source:NCBI gene;Acc:529002]

novel.763	0.774295533	0.072627	-	-
ENSBTAG00000033422	-3.379467566	0.072627	HHATL	Bos taurus hedgehog acyltransferase like (HHATL), mRNA. [Source:RefSeq mRNA;Acc:NM_001077929]
ENSBTAG00000040543	1.574852444	0.073051	TMEM200A	transmembrane protein 200A [Source:NCBI gene;Acc:112448061]
ENSBTAG00000002341	-0.561761194	0.073058	ETS1	ETS proto-oncogene 1, transcription factor [Source:VGNC Symbol;Acc:VGNC:28626]
ENSBTAG00000019857	-0.508074377	0.073153	OTUD4	Bos taurus OTU deubiquitinase 4 (OTUD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001243311]
ENSBTAG00000011969	0.704601068	0.073153	HSPB1	Bos taurus heat shock protein family B (small) member 1 (HSPB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001025569]
ENSBTAG00000053201	-1.204627421	0.073153	-	-
ENSBTAG00000012808	-0.729696676	0.073263	MASP2	Bos taurus mannan binding lectin serine peptidase 2 (MASP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192072]
ENSBTAG00000005932	-1.284943524	0.073467	FAM184B	family with sequence similarity 184 member B [Source:VGNC Symbol;Acc:VGNC:28766]
ENSBTAG00000015251	-0.786104209	0.073483	-	-
ENSBTAG00000014182	0.411256386	0.073578	CTNNA1	Bos taurus catenin alpha 1 (CTNNA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035366]
ENSBTAG00000039705	0.773816364	0.073784	HGH1	HGH1 homolog [Source:VGNC Symbol;Acc:VGNC:29835]
ENSBTAG00000007489	-0.494269954	0.07387	NCOA3	nuclear receptor coactivator 3 [Source:VGNC Symbol;Acc:VGNC:31921]
ENSBTAG00000014960	-0.844141411	0.07387	SCHIP1	schwannomin interacting protein 1 [Source:NCBI gene;Acc:535716]
ENSBTAG00000021308	-0.512357701	0.07387	IRS1	insulin receptor substrate 1 [Source:VGNC Symbol;Acc:VGNC:30283]
ENSBTAG00000007969	0.55519002	0.07389	CIDEC	cell death inducing DFFA like effector c [Source:VGNC Symbol;Acc:VGNC:27365]
ENSBTAG00000008204	-0.785959256	0.07389	CARNMT1	carnosine N-methyltransferase 1 [Source:VGNC Symbol;Acc:VGNC:26771]

ENSBTAG00000018369	-3.491294109	0.07389	MYL2	Bos taurus myosin light chain 2 (MYL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035025]
ENSBTAG00000011100	0.565901168	0.07389	CTSC	cathepsin C [Source:VGNC Symbol;Acc:VGNC:27814]
ENSBTAG00000006780	1.065135476	0.07389	NAPSA	napsin A aspartic peptidase [Source:VGNC Symbol;Acc:VGNC:31886]
ENSBTAG00000001002	-0.591094545	0.073919	TCF7	Bos taurus transcription factor 7 (TCF7), mRNA. [Source:RefSeq mRNA;Acc:NM_001099186]
ENSBTAG000000047231	-3.295700404	0.073991	TNNI1	troponin I1, slow skeletal type [Source:VGNC Symbol;Acc:VGNC:36191]
ENSBTAG000000011234	-0.497481796	0.074017	FOXO3	Bos taurus forkhead box O3 (FOXO3), mRNA. [Source:RefSeq mRNA;Acc:NM_001206083]
ENSBTAG000000011766	-0.782928086	0.074017	C7	Bos taurus complement C7 (C7), mRNA. [Source:RefSeq mRNA;Acc:NM_001045966]
ENSBTAG00000000328	-3.026661115	0.0741	TPPP2	tubulin polymerization promoting protein family member 2 [Source:VGNC Symbol;Acc:VGNC:36259]
novel.65	1.535329815	0.074175	-	-
ENSBTAG000000014111	-0.874341358	0.074175	INPP4B	inositol polyphosphate-4-phosphatase type II B [Source:VGNC Symbol;Acc:VGNC:53908]
ENSBTAG000000049861	2.630959753	0.074289	WC1	Bos taurus BoWC1.1 (WC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001281899]
ENSBTAG000000048659	-0.654758136	0.074289	-	-
ENSBTAG000000002018	0.536555906	0.074312	EIF5A	eukaryotic translation initiation factor 5A [Source:NCBI gene;Acc:444990]
ENSBTAG000000018722	0.539144309	0.074379	PLEKHM2	Bos taurus pleckstrin homology and RUN domain containing M2 (PLEKHM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192416]
ENSBTAG000000013108	0.83689778	0.074379	HK2	hexokinase 2 [Source:VGNC Symbol;Acc:VGNC:29865]
ENSBTAG000000012954	-0.72621678	0.074379	ERAS	ES cell expressed Ras [Source:VGNC Symbol;Acc:VGNC:28562]
ENSBTAG000000017263	-0.584341927	0.074479	MXI1	Bos taurus MAX interactor 1, dimerization protein (MXI1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076331]

ENSBTAG00000051080	-1.044453942	0.074479	-	-
ENSBTAG00000007068	-1.640728145	0.074489	SH3BGR	Bos taurus SH3 domain binding glutamate rich protein (SH3BGR), mRNA. [Source:RefSeq mRNA;Acc:NM_001243326]
ENSBTAG00000001269	0.523315422	0.074508	TMEM165	Bos taurus transmembrane protein 165 (TMEM165), mRNA. [Source:RefSeq mRNA;Acc:NM_001206006]
ENSBTAG00000001022	0.481639393	0.074588	AMDHD2	N-acetylglucosamine-6-phosphate deacetylase [Source:UniProtKB/Swiss-Prot;Acc:A7MBC0]
ENSBTAG00000009707	-3.780446848	0.074786	MYL1	Bos taurus myosin light chain 1 (MYL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001079578]
ENSBTAG00000008434	0.851023676	0.075105	GCAT	glycine C-acetyltransferase [Source:VGNC Symbol;Acc:VGNC:29279]
ENSBTAG00000010555	-1.503436299	0.075158	LSMEM1	Bos taurus leucine rich single-pass membrane protein 1 (LSMEM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001099718]
ENSBTAG00000016563	-0.544626012	0.075158	GOLGA4	Bos taurus golgin A4 (GOLGA4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192125]
ENSBTAG00000020312	-0.52050769	0.075158	NCOA2	nuclear receptor coactivator 2 [Source:VGNC Symbol;Acc:VGNC:50226]
ENSBTAG00000016846	0.406139167	0.075158	YWHAB	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein beta [Source:VGNC Symbol;Acc:VGNC:37044]
ENSBTAG00000015138	-0.538227616	0.075192	MGA	Bos taurus MGA, MAX dimerization protein (MGA), mRNA. [Source:RefSeq mRNA;Acc:NM_001191402]
ENSBTAG00000019187	-0.608627482	0.075192	ZNF462	zinc finger protein 462 [Source:VGNC Symbol;Acc:VGNC:37280]
ENSBTAG00000005385	0.64768097	0.075192	POP5	POP5 homolog, ribonuclease P/MRP subunit [Source:VGNC Symbol;Acc:VGNC:33165]
ENSBTAG00000017183	-2.170283146	0.075192	PDLIM3	Bos taurus PDZ and LIM domain 3 (PDLIM3), mRNA. [Source:RefSeq mRNA;Acc:NM_001034646]
ENSBTAG00000016688	-1.641436717	0.075192	-	-

novel.177	-0.582196513	0.075192	-	-
ENSBTAG00000012030	0.726129343	0.075192	TTLL1	Bos taurus tubulin tyrosine ligase like 1 (TTLL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076171]
ENSBTAG00000049029	1.129982649	0.075284	-	-
ENSBTAG00000009279	-0.478657391	0.075301	TNKS2	tankyrase 2 [Source:VGNC Symbol;Acc:VGNC:36186]
ENSBTAG00000011876	-0.565625164	0.075682	MORC3	MORC family CW-type zinc finger 3 [Source:VGNC Symbol;Acc:VGNC:31556]
ENSBTAG00000016341	-0.68609162	0.075682	RGS5	Bos taurus regulator of G protein signaling 5 (RGS5), mRNA. [Source:RefSeq mRNA;Acc:NM_001034707]
ENSBTAG00000020911	-0.420306965	0.075682	FNBP4	formin binding protein 4 [Source:VGNC Symbol;Acc:VGNC:54870]
ENSBTAG00000020379	0.455389315	0.075711	AREL1	Bos taurus apoptosis resistant E3 ubiquitin protein ligase 1 (AREL1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076165]
ENSBTAG00000002703	0.556739	0.075823	ATP6V1A	Bos taurus ATPase H ⁺ transporting V1 subunit A (ATP6V1A), mRNA. [Source:RefSeq mRNA;Acc:NM_174504]
ENSBTAG00000010775	-0.456844048	0.075823	POGK	Bos taurus pogo transposable element derived with KRAB domain (POGK), mRNA. [Source:RefSeq mRNA;Acc:NM_001099100]
ENSBTAG00000016145	-0.845910512	0.07597	ADAMTS19	Bos taurus ADAM metalloproteinase with thrombospondin type 1 motif 19 (ADAMTS19), mRNA. [Source:RefSeq mRNA;Acc:NM_001206114]
ENSBTAG00000011284	0.525574141	0.076068	SLC39A1	Bos taurus solute carrier family 39 member 1 (SLC39A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035381]
ENSBTAG00000019953	0.799855806	0.076068	CYBB	Bos taurus cytochrome b-245 beta chain (CYBB), mRNA. [Source:RefSeq mRNA;Acc:NM_174035]
ENSBTAG00000054776	1.015014495	0.076075	TXNDC17	thioredoxin domain containing 17 [Source:NCBI gene;Acc:404159]
ENSBTAG00000027711	0.542077054	0.076075	YIF1B	Yip1 interacting factor homolog B, membrane trafficking protein [Source:VGNC Symbol;Acc:VGNC:37024]

ENSBTAG00000023867	-0.75441979	0.07617	RC3H2	ring finger and CCCH-type domains 2 [Source:VGNC Symbol;Acc:VGNC:33819]
ENSBTAG00000021107	-0.521478808	0.07617	STXBP5	Bos taurus syntaxin binding protein 5 (STXBP5), mRNA. [Source:RefSeq mRNA;Acc:NM_001191540]
ENSBTAG00000007215	0.609254921	0.076234	RNPEPL1	arginyl aminopeptidase like 1 [Source:VGNC Symbol;Acc:VGNC:55076]
ENSBTAG00000005644	1.254609186	0.076254	GALNT9	Bos taurus polypeptide N-acetylgalactosaminyltransferase 9 (GALNT9), mRNA. [Source:RefSeq mRNA;Acc:NM_001083641]
ENSBTAG00000020542	-0.816838052	0.076273	SHE	Bos taurus Src homology 2 domain containing E (SHE), mRNA. [Source:RefSeq mRNA;Acc:NM_001098140]
ENSBTAG00000047621	0.858106224	0.076501	-	-
ENSBTAG00000015775	1.863423131	0.07655	CHRNA7	Bos taurus cholinergic receptor, nicotinic, alpha 7 (CHRNA7), mRNA. [Source:RefSeq mRNA;Acc:NM_174515]
ENSBTAG00000011551	-0.935886313	0.076567	CPNE9	Bos taurus copine family member 9 (CPNE9), mRNA. [Source:RefSeq mRNA;Acc:NM_001099195]
ENSBTAG00000019294	-0.818143009	0.076664	ABCC9	ATP binding cassette subfamily C member 9 [Source:VGNC Symbol;Acc:VGNC:25476]
ENSBTAG00000048781	-0.464173674	0.07682	-	-
ENSBTAG00000012577	-0.616713752	0.07682	UVSSA	UV stimulated scaffold protein A [Source:VGNC Symbol;Acc:VGNC:36752]
ENSBTAG00000019160	0.424045328	0.077306	GLOD4	Bos taurus glyoxalase domain containing 4 (GLOD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001101953]
novel.1245	1.156488085	0.077306	-	-
ENSBTAG00000008792	0.867581354	0.077306	RNASE6	Bos taurus ribonuclease A family member k6 (RNASE6), mRNA. [Source:RefSeq mRNA;Acc:NM_174594]
ENSBTAG00000011758	1.21200335	0.077422	-	-
ENSBTAG00000053180	2.191144907	0.077686	-	-

ENSBTAG00000020939	0.732009719	0.07769	PLAC9	Bos taurus placenta specific 9 (PLAC9), mRNA. [Source:RefSeq mRNA;Acc:NM_001038521]
ENSBTAG00000006920	0.696850646	0.077727	ABCF3	Bos taurus ATP binding cassette subfamily F member 3 (ABCF3), mRNA. [Source:RefSeq mRNA;Acc:NM_001083457]
ENSBTAG00000004275	0.653450108	0.077757	DKK3	Bos taurus dickkopf WNT signaling pathway inhibitor 3 (DKK3), mRNA. [Source:RefSeq mRNA;Acc:NM_001100306]
ENSBTAG00000002151	-3.489951769	0.077824	ASB15	ankyrin repeat and SOCS box containing 15 [Source:VGNC Symbol;Acc:VGNC:26192]
ENSBTAG00000002570	-0.434601181	0.077824	PPP1R21	Bos taurus protein phosphatase 1 regulatory subunit 21 (PPP1R21), mRNA. [Source:RefSeq mRNA;Acc:NM_001103093]
ENSBTAG00000018572	1.750163891	0.078048	FLT3	fms related tyrosine kinase 3 [Source:VGNC Symbol;Acc:VGNC:29042]
ENSBTAG00000020219	-0.671844487	0.078588	MSS51	Bos taurus MSS51 mitochondrial translational activator (MSS51), mRNA. [Source:RefSeq mRNA;Acc:NM_001205641]
ENSBTAG00000031327	0.808393044	0.078773	TRMT61A	tRNA methyltransferase 61A [Source:VGNC Symbol;Acc:VGNC:36375]
ENSBTAG00000001042	-0.519809432	0.078835	MXD1	Bos taurus MAX dimerization protein 1 (MXD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192380]
ENSBTAG00000022244	-3.374843311	0.078881	ACTN3	Bos taurus actinin alpha 3 (ACTN3), mRNA. [Source:RefSeq mRNA;Acc:NM_001076157]
novel.1418	-2.931910317	0.078964	-	-
ENSBTAG00000017750	0.482849118	0.079035	RHBDD3	rhomboid domain containing 3 [Source:VGNC Symbol;Acc:VGNC:33932]
ENSBTAG00000011638	1.555026593	0.079083	-	-
ENSBTAG00000008945	-0.765121152	0.079083	SDSL	serine dehydratase like [Source:VGNC Symbol;Acc:VGNC:34400]
ENSBTAG00000001603	-2.946242413	0.079101	YIPF7	Bos taurus Yip1 domain family member 7 (YIPF7), mRNA. [Source:RefSeq mRNA;Acc:NM_001103258]

ENSBTAG00000046493	0.460081529	0.079101	PDCD6	Bos taurus programmed cell death 6 (PDCD6), mRNA. [Source:RefSeq mRNA;Acc:NM_001105497]
ENSBTAG00000004875	0.503041685	0.079101	NAA60	Bos taurus N(alpha)-acetyltransferase 60, NatF catalytic subunit (NAA60), mRNA. [Source:RefSeq mRNA;Acc:NM_001075649]
ENSBTAG00000038696	0.470860797	0.079101	RAB8A	RAB8A, member RAS oncogene family [Source:VGNC Symbol;Acc:VGNC:33662]
ENSBTAG00000006379	0.578520598	0.079101	BPHL	biphenyl hydrolase like [Source:VGNC Symbol;Acc:VGNC:53958]
ENSBTAG00000017759	0.418658599	0.079101	-	nodal modulator 1 [Source:NCBI gene;Acc:515570]
novel.1071	-0.759649874	0.079101	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSBTAG00000038496	0.621265562	0.079101	CR2	Bos taurus complement C3d receptor 2 (CR2), mRNA. [Source:RefSeq mRNA;Acc:NM_001198991]
ENSBTAG00000013486	-0.927126369	0.079297	C5H12orf66	Bos taurus chromosome 5 C12orf66 homolog (C5H12orf66), mRNA. [Source:RefSeq mRNA;Acc:NM_001206082]
ENSBTAG00000018282	0.555510024	0.079297	NIF3L1	Bos taurus NGG1 interacting factor 3 like 1 (NIF3L1), mRNA. [Source:RefSeq mRNA;Acc:NM_001080249]
ENSBTAG00000003255	1.107518953	0.079305	CD4	Bos taurus CD4 molecule (CD4), mRNA. [Source:RefSeq mRNA;Acc:NM_001103225]
ENSBTAG00000010359	-0.452631951	0.079321	THG1L	Bos taurus tRNA-histidine guanylyltransferase 1 like (THG1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001080233]
ENSBTAG00000013716	-0.434753057	0.079321	NR2C2	Bos taurus nuclear receptor subfamily 2 group C member 2 (NR2C2), mRNA. [Source:RefSeq mRNA;Acc:NM_001192061]
ENSBTAG00000003586	-0.677125093	0.079325	MAN1A2	mannosidase alpha class 1A member 2 [Source:VGNC Symbol;Acc:VGNC:31162]
ENSBTAG00000039993	0.727409847	0.079559	CD1D	CD1D antigen, d polypeptide [Source:NCBI gene;Acc:516046]

ENSBTAG00000013316	-0.489184193	0.079782	BRPF3	Bos taurus bromodomain and PHD finger containing 3 (BRPF3), mRNA. [Source:RefSeq mRNA;Acc:NM_001205627]
ENSBTAG00000038434	-0.796733579	0.079993	ATRX	ATRX, chromatin remodeler [Source:VGNC Symbol;Acc:VGNC:26336]
ENSBTAG00000012099	-0.543090182	0.080073	TMEM87B	transmembrane protein 87B [Source:VGNC Symbol;Acc:VGNC:36119]
ENSBTAG00000014508	-1.934541838	0.08015	FBXO40	F-box protein 40 [Source:VGNC Symbol;Acc:VGNC:28911]
ENSBTAG00000013921	-3.796919806	0.08015	CKM	creatine kinase, M-type [Source:VGNC Symbol;Acc:VGNC:27385]
ENSBTAG00000040496	-0.968440963	0.080275	KCNB2	potassium voltage-gated channel subfamily B member 2 [Source:VGNC Symbol;Acc:VGNC:30431]
ENSBTAG00000021746	0.484649816	0.080298	ANXA5	Bos taurus annexin A5 (ANXA5), mRNA. [Source:RefSeq mRNA;Acc:NM_001040477]
ENSBTAG00000025752	0.705157639	0.080323	P3H4	prolyl 3-hydroxylase family member 4 (non-enzymatic) [Source:NCBI gene;Acc:788823]
ENSBTAG00000006419	-3.289113011	0.080323	TNNT1	Bos taurus troponin T1, slow skeletal type (TNNT1), mRNA. [Source:RefSeq mRNA;Acc:NM_174474]
ENSBTAG00000002745	0.593199228	0.080386	APEX1	Bos taurus apurinic/apyrimidinic endodeoxyribonuclease 1 (APEX1), mRNA. [Source:RefSeq mRNA;Acc:NM_176609]
ENSBTAG00000010339	0.688840302	0.080498	ABHD11	abhydrolase domain containing 11 [Source:VGNC Symbol;Acc:VGNC:25489]
ENSBTAG00000001314	0.574089199	0.080498	TRMT6	Bos taurus tRNA methyltransferase 6 (TRMT6), mRNA. [Source:RefSeq mRNA;Acc:NM_001038040]
ENSBTAG00000049487	-0.630804945	0.080677	-	C-type lectin domain family 2 member D11-like [Source:NCBI gene;Acc:509972]
ENSBTAG00000038330	0.616260508	0.080834	-	Bos taurus CG2446-like (LOC516108), mRNA. [Source:RefSeq mRNA;Acc:NM_001194953]
ENSBTAG00000034393	-0.603370927	0.080842	FAM149A	family with sequence similarity 149 member A [Source:VGNC Symbol;Acc:VGNC:55045]

ENSBTAG00000003291	-0.76123055	0.080948	RIMKLB	Bos taurus ribosomal modification protein rimK like family member B (RIMKLB), mRNA. [Source:RefSeq mRNA;Acc:NM_001076113]
ENSBTAG00000051461	-0.911845872	0.080948	SERTM1	Bos taurus serine rich and transmembrane domain containing 1 (SERTM1), mRNA. [Source:RefSeq mRNA;Acc:NM_001302941]
ENSBTAG00000010630	-0.814649965	0.081165	ABHD18	abhydrolase domain containing 18 [Source:VGNC Symbol;Acc:VGNC:25499]
ENSBTAG00000019956	0.413245298	0.081165	CMPK1	Bos taurus cytidine/uridine monophosphate kinase 1 (CMPK1), mRNA. [Source:RefSeq mRNA;Acc:NM_001046044]
ENSBTAG00000033319	-0.579896966	0.08139	CD200	Bos taurus CD200 molecule (CD200), mRNA. [Source:RefSeq mRNA;Acc:NM_001034620]
ENSBTAG00000017120	0.512744696	0.08139	PHB	prohibitin [Source:VGNC Symbol;Acc:VGNC:32808]
ENSBTAG00000046026	2.101236298	0.081443	SLC39A4	Bos taurus solute carrier family 39 member 4 (SLC39A4), mRNA. [Source:RefSeq mRNA;Acc:NM_001046067]
ENSBTAG00000039413	1.80106853	0.081558	-	-
ENSBTAG00000020387	-0.41277413	0.081566	MARF1	Bos taurus meiosis regulator and mRNA stability factor 1 (MARF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001271994]
ENSBTAG00000023426	-0.802148239	0.081826	FAIM	Fas apoptotic inhibitory molecule [Source:VGNC Symbol;Acc:VGNC:28709]
ENSBTAG00000018761	0.474161015	0.082011	SLC35F6	Bos taurus solute carrier family 35 member F6 (SLC35F6), mRNA. [Source:RefSeq mRNA;Acc:NM_001083704]
ENSBTAG00000040442	-0.726307973	0.082011	-	-
ENSBTAG00000001440	0.538739371	0.082011	PMM2	Bos taurus phosphomannomutase 2 (PMM2), mRNA. [Source:RefSeq mRNA;Acc:NM_001035095]
ENSBTAG00000046263	-0.668587665	0.082098	ADAMTSL5	ADAMTS like 5 [Source:HGNC Symbol;Acc:HGNC:27912]
novel.103	1.084479006	0.082133	-	PF18697:Murine leukemia virus (MLV) integrase (IN) C-terminal domain PF00665:Integrase core domain
ENSBTAG00000019136	0.493969206	0.082133	STUB1	STIP1 homology and U-box containing protein 1 [Source:HGNC Symbol;Acc:HGNC:11427]

ENSBTAG00000005660	0.411248225	0.082133	PSMD2	Bos taurus proteasome 26S subunit, non-ATPase 2 (PSMD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101197]
ENSBTAG00000009178	0.686874517	0.082381	STXBP2	Bos taurus syntaxin binding protein 2 (STXBP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046208]
ENSBTAG00000020747	-0.726634176	0.082652	ASS1	Bos taurus argininosuccinate synthase 1 (ASS1), mRNA. [Source:RefSeq mRNA;Acc:NM_173892]
ENSBTAG00000016399	-1.346083884	0.08281	AKAP4	Bos taurus A-kinase anchoring protein 4 (AKAP4), mRNA. [Source:RefSeq mRNA;Acc:NM_174235]
ENSBTAG00000047491	-3.10558133	0.08281	CACNA1S	calcium voltage-gated channel subunit alpha 1 S [Source:HGNC Symbol;Acc:HGNC:1397]
ENSBTAG00000015614	-0.62244643	0.08281	LNX2	Bos taurus ligand of numb-protein X 2 (LN2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075884]
ENSBTAG00000026080	1.009628239	0.08281	-	leukocyte associated immunoglobulin like receptor 1 [Source:NCBI gene;Acc:615295]
ENSBTAG00000009153	0.630606678	0.08281	MLXIPL	MLX interacting protein like [Source:VGNC Symbol;Acc:VGNC:31510]
ENSBTAG00000020613	0.549342744	0.08281	STK16	Bos taurus serine/threonine kinase 16 (STK16), mRNA. [Source:RefSeq mRNA;Acc:NM_001046255]
ENSBTAG00000015147	0.477542109	0.08281	S100A10	Bos taurus S100 calcium binding protein A10 (S100A10), mRNA. [Source:RefSeq mRNA;Acc:NM_174650]
ENSBTAG00000038195	-0.613898958	0.082905	CD302	CD302 molecule [Source:VGNC Symbol;Acc:VGNC:55333]
ENSBTAG00000051230	-0.389623815	0.08292	SLC43A1	Bos taurus solute carrier family 43 member 1 (SLC43A1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206598]
ENSBTAG00000016881	-0.682778194	0.083017	ANPEP	Bos taurus alanyl aminopeptidase, membrane (ANPEP), mRNA. [Source:RefSeq mRNA;Acc:NM_001075144]
ENSBTAG00000001193	0.591494832	0.083019	UNC93B1	Bos taurus unc-93 homolog B1, TLR signaling regulator (UNC93B1), mRNA. [Source:RefSeq mRNA;Acc:NM_001193147]

ENSBTAG00000001034	-1.106778049	0.083106	IL18R1	interleukin 18 receptor 1 [Source:VGNC Symbol;Acc:VGNC:30127]
ENSBTAG00000009023	-0.75852677	0.083106	TMTC3	transmembrane and tetratricopeptide repeat containing 3 [Source:VGNC Symbol;Acc:VGNC:36147]
ENSBTAG00000012416	0.564496979	0.083203	ZNF511	Bos taurus zinc finger protein 511 (ZNF511), mRNA. [Source:RefSeq mRNA;Acc:NM_001206234]
ENSBTAG00000016204	1.301599647	0.083203	C1RL	complement C1r subcomponent like [Source:VGNC Symbol;Acc:VGNC:26629]
ENSBTAG00000016005	-0.517911385	0.083203	PPP3CA	protein phosphatase 3 catalytic subunit alpha [Source:VGNC Symbol;Acc:VGNC:33265]
ENSBTAG00000009795	0.6032138	0.083269	SF3B5	splicing factor 3b subunit 5 [Source:VGNC Symbol;Acc:VGNC:34512]
ENSBTAG00000011389	0.84341967	0.083269	TMEM104	Bos taurus transmembrane protein 104 (TMEM104), mRNA. [Source:RefSeq mRNA;Acc:NM_001079596]
ENSBTAG00000001822	0.755688296	0.083269	SNX10	Bos taurus sorting nexin 10 (SNX10), mRNA. [Source:RefSeq mRNA;Acc:NM_001075375]
ENSBTAG00000024688	-0.704246589	0.083297	PHIP	pleckstrin homology domain interacting protein [Source:VGNC Symbol;Acc:VGNC:32829]
ENSBTAG00000006050	0.603214493	0.083387	BOLA1	Bos taurus bolA family member 1 (BOLA1), mRNA. [Source:RefSeq mRNA;Acc:NM_001034352]
ENSBTAG00000006029	0.500769386	0.083419	OGDH	Bos taurus oxoglutarate dehydrogenase (OGDH), mRNA. [Source:RefSeq mRNA;Acc:NM_001076030]
ENSBTAG00000011597	-0.540875277	0.083419	PDS5B	PDS5 cohesin associated factor B [Source:VGNC Symbol;Acc:VGNC:32718]
ENSBTAG00000011590	1.308295048	0.083448	GLIPR1	Bos taurus GLI pathogenesis related 1 (GLIPR1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076984]
ENSBTAG00000004979	0.598242482	0.08354	MRS2	Bos taurus magnesium transporter MRS2 (MRS2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101903]

ENSBTAG00000019204	0.450482202	0.08354	RTN3	Bos taurus reticulon 3 (RTN3), mRNA. [Source:RefSeq mRNA;Acc:NM_182657]
ENSBTAG00000000720	-1.185420691	0.083562	CTSL	Bos taurus cathepsin L (CTSL), mRNA. [Source:RefSeq mRNA;Acc:NM_001083686]
ENSBTAG00000047083	0.690891641	0.083577	FJX1	four-jointed box kinase 1 [Source:VGNC Symbol;Acc:VGNC:54869]
ENSBTAG00000009137	0.911345251	0.083577	NKG7	natural killer cell granule protein 7 [Source:VGNC Symbol;Acc:VGNC:32094]
ENSBTAG00000015277	-0.563774268	0.083577	PCF11	PCF11, cleavage and polyadenylation factor subunit [Source:VGNC Symbol;Acc:VGNC:32625]
ENSBTAG00000003354	-0.522318411	0.083713	SMCHD1	Bos taurus structural maintenance of chromosomes flexible hinge domain containing 1 (SMCHD1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206400]
ENSBTAG00000027361	0.614960407	0.083713	ROMO1	Bos taurus reactive oxygen species modulator 1 (ROMO1), mRNA. [Source:RefSeq mRNA;Acc:NM_001114528]
ENSBTAG00000002036	-0.55028792	0.083901	CACNB1	calcium voltage-gated channel auxiliary subunit beta 1 [Source:VGNC Symbol;Acc:VGNC:26683]
ENSBTAG00000008814	-0.633444176	0.083903	ADGRA2	adhesion G protein-coupled receptor A2 [Source:HGNC Symbol;Acc:HGNC:17849]
ENSBTAG00000014291	1.446262181	0.084014	WNT2B	Bos taurus Wnt family member 2B (WNT2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001099363]
ENSBTAG00000045757	-3.339159449	0.084183	TNNC1	troponin C1, slow skeletal and cardiac type [Source:VGNC Symbol;Acc:VGNC:36189]
ENSBTAG00000012079	-3.48487884	0.084366	MYLK4	myosin light chain kinase family member 4 [Source:VGNC Symbol;Acc:VGNC:31808]
ENSBTAG00000034360	0.7690727	0.084513	-	Small EDRK-rich factor 1 [Source:UniProtKB/Swiss-Prot;Acc:Q32P76]
ENSBTAG00000002283	-0.469573657	0.08469	FZD7	Bos taurus frizzled class receptor 7 (FZD7), mRNA. [Source:RefSeq mRNA;Acc:NM_001144091]

ENSBTAG00000001405	-0.598748616	0.08469	GLCE	glucuronic acid epimerase [Source:VGNC Symbol;Acc:VGNC:29394]
ENSBTAG00000005951	-0.720517594	0.084778	HIC2	HIC ZBTB transcriptional repressor 2 [Source:VGNC Symbol;Acc:VGNC:29846]
ENSBTAG00000022622	-0.975323771	0.084778	CISH	cytokine inducible SH2 containing protein [Source:VGNC Symbol;Acc:VGNC:27374]
ENSBTAG00000016776	0.531956559	0.084778	BAHCC1	BAH domain and coiled-coil containing 1 [Source:VGNC Symbol;Acc:VGNC:55774]
ENSBTAG00000016675	0.410351507	0.084778	ANAPC7	Bos taurus anaphase promoting complex subunit 7 (ANAPC7), mRNA. [Source:RefSeq mRNA;Acc:NM_001192845]
ENSBTAG00000006051	0.415483179	0.084804	NMT1	Bos taurus N-myristoyltransferase 1 (NMT1), mRNA. [Source:RefSeq mRNA;Acc:NM_177504]
ENSBTAG00000011044	0.740244739	0.08493	TACC3	Bos taurus transforming acidic coiled-coil containing protein 3 (TACC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001100305]
ENSBTAG00000015702	-2.092998892	0.085195	PITX3	Bos taurus paired like homeodomain 3 (PITX3), mRNA. [Source:RefSeq mRNA;Acc:NM_001192305]
ENSBTAG00000013971	0.45053355	0.085277	PI4KA	Bos taurus phosphatidylinositol 4-kinase alpha (PI4KA), mRNA. [Source:RefSeq mRNA;Acc:NM_174577]
ENSBTAG00000011896	0.60488756	0.085364	GRIP2	glutamate receptor interacting protein 2 [Source:VGNC Symbol;Acc:VGNC:29652]
ENSBTAG00000013665	-1.441555218	0.085383	KCNG2	potassium voltage-gated channel modifier subfamily G member 2 [Source:VGNC Symbol;Acc:VGNC:30443]
ENSBTAG00000003207	0.934713993	0.085383	SP5	Sp5 transcription factor [Source:VGNC Symbol;Acc:VGNC:56148]
ENSBTAG00000054976	-0.979182386	0.085685	MCTP1	multiple C2 and transmembrane domain containing 1 [Source:HGNC Symbol;Acc:HGNC:26183]
ENSBTAG00000017439	0.525202868	0.085726	MIEF1	Bos taurus mitochondrial elongation factor 1 (MIEF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001206126]

ENSBTAG00000053400	-4.041615733	0.085809	-	-
ENSBTAG00000016349	-0.590017583	0.08595	TEAD2	Bos taurus TEA domain transcription factor 2 (TEAD2), mRNA. [Source:RefSeq mRNA;Acc:NM_001103347]
ENSBTAG00000052527	1.074892943	0.08595	-	-
ENSBTAG00000009353	0.841726152	0.08595	EVI2B	Bos taurus ecotropic viral integration site 2B (EVI2B), mRNA. [Source:RefSeq mRNA;Acc:NM_001099166]
ENSBTAG00000019155	-0.616923302	0.086512	FRS2	fibroblast growth factor receptor substrate 2 [Source:VGNC Symbol;Acc:VGNC:29120]
ENSBTAG00000031071	-0.571066422	0.086512	ZNF624	zinc finger protein 624 [Source:HGNC Symbol;Acc:HGNC:29254]
ENSBTAG00000008380	-0.561814905	0.086521	ITGA11	integrin subunit alpha 11 [Source:VGNC Symbol;Acc:VGNC:30312]
ENSBTAG00000004215	-0.817100993	0.086521	RARRES2	Bos taurus retinoic acid receptor responder 2 (RARRES2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046020]
ENSBTAG00000014233	0.455669011	0.086521	CCT8	Bos taurus chaperonin containing TCP1 subunit 8 (CCT8), mRNA. [Source:RefSeq mRNA;Acc:NM_001033609]
ENSBTAG00000046176	-0.905221332	0.086565	SPEG	Bos taurus SPEG complex locus (SPEG), mRNA. [Source:RefSeq mRNA;Acc:NM_001142485]
ENSBTAG00000003040	-0.566903239	0.08693	RALGAPB	Ral GTPase activating protein non-catalytic beta subunit [Source:VGNC Symbol;Acc:VGNC:33703]
ENSBTAG00000037527	-1.166542507	0.08693	OAS1Z	Bos taurus 2',5'-oligoadenylate synthetase 1, 40/46kDa (OAS1Z), mRNA. [Source:RefSeq mRNA;Acc:NM_001029846]
ENSBTAG00000030979	0.88642939	0.086932	TUBA3E	Bos taurus tubulin, alpha 3e (TUBA3E), mRNA. [Source:RefSeq mRNA;Acc:NM_001038163]
ENSBTAG00000021968	-0.690703204	0.087095	MID2	midline 2 [Source:HGNC Symbol;Acc:HGNC:7096]
ENSBTAG00000000838	-0.600689738	0.087406	CCDC88C	Bos taurus coiled-coil domain containing 88C (CCDC88C), mRNA. [Source:RefSeq mRNA;Acc:NM_001102017]
ENSBTAG00000016703	-0.472903232	0.087409	CDC73	Bos taurus cell division cycle 73 (CDC73), mRNA. [Source:RefSeq mRNA;Acc:NM_001191272]

ENSBTAG0000000599	-0.458271507	0.087409	CCNI	Bos taurus cyclin I (CCNI), mRNA. [Source:RefSeq mRNA;Acc:NM_001083373]
ENSBTAG00000031061	0.660904624	0.087562	POLR2L	Bos taurus RNA polymerase II subunit L (POLR2L), mRNA. [Source:RefSeq mRNA;Acc:NM_001113726]
ENSBTAG00000009181	0.46137319	0.087632	INPP5A	inositol polyphosphate-5-phosphatase A [Source:VGNC Symbol;Acc:VGNC:30210] Bos taurus DnaJ heat shock protein family (Hsp40) member C6 (DNAJC6), mRNA. [Source:RefSeq mRNA;Acc:NM_174836]
ENSBTAG00000030749	-1.521073827	0.087632	DNAJC6	
ENSBTAG00000022991	-0.78739812	0.08775	NBEA	neurobeachin [Source:VGNC Symbol;Acc:VGNC:31893]
ENSBTAG00000024137	0.536126508	0.08775	PTCH2	patched 2 [Source:VGNC Symbol;Acc:VGNC:33492]
ENSBTAG00000007153	0.617897232	0.087811	C1QA	complement C1q A chain [Source:VGNC Symbol;Acc:VGNC:26616]
ENSBTAG00000015840	-2.182929062	0.087829	HOXD1	homeobox D1 [Source:VGNC Symbol;Acc:VGNC:29929]
ENSBTAG00000026384	-0.793566871	0.087829	ZAR1L	Bos taurus zygote arrest 1 like (ZAR1L), mRNA. [Source:RefSeq mRNA;Acc:NM_001127440]
ENSBTAG00000014593	-0.888443291	0.087929	-	-
ENSBTAG00000019933	0.397596632	0.087929	MKNK1	Bos taurus MAP kinase interacting serine/threonine kinase 1 (MKNK1), mRNA. [Source:RefSeq mRNA;Acc:NM_001035358]
ENSBTAG00000006440	-0.622039498	0.088035	IGDCC4	immunoglobulin superfamily DCC subclass member 4 [Source:VGNC Symbol;Acc:VGNC:30075]
ENSBTAG00000012920	0.677731731	0.088035	TMEM70	transmembrane protein 70 [Source:VGNC Symbol;Acc:VGNC:36108]
novel.740	0.770652441	0.088035	-	-
ENSBTAG00000017662	-0.499349379	0.088035	EEF2K	eukaryotic elongation factor 2 kinase [Source:VGNC Symbol;Acc:VGNC:28336]
ENSBTAG00000016594	0.475235645	0.088064	PIGQ	phosphatidylinositol glycan anchor biosynthesis class Q [Source:VGNC Symbol;Acc:VGNC:32875]

ENSBTAG00000030855	0.82516304	0.088064	CHCHD6	coiled-coil-helix-coiled-coil-helix domain containing 6 [Source:VGNC Symbol;Acc:VGNC:27274]
ENSBTAG00000045779	0.490766734	0.088064	UBE2A	Bos taurus ubiquitin conjugating enzyme E2 A (UBE2A), mRNA. [Source:RefSeq mRNA;Acc:NM_001105325]
ENSBTAG00000047214	0.549808564	0.088119	TRAPPC1	Bos taurus trafficking protein particle complex 1 (TRAPPC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001076413]
novel.255	-1.891852144	0.088166	-	-
ENSBTAG00000004937	0.469391564	0.088166	SEC61A1	Sec61 translocon alpha 1 subunit [Source:VGNC Symbol;Acc:VGNC:49153]
ENSBTAG00000004901	-0.757992671	0.088239	PIK3C2A	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha [Source:NCBI gene;Acc:537790]
ENSBTAG00000010138	-0.370506708	0.088282	SEMA3B	semaphorin 3B [Source:VGNC Symbol;Acc:VGNC:34427]
ENSBTAG00000044065	-0.705333987	0.088282	-	-
ENSBTAG00000007236	-0.583074021	0.088282	PCM1	pericentriolar material 1 [Source:VGNC Symbol;Acc:VGNC:32634]
ENSBTAG00000002795	-0.577221411	0.088412	NKTR	natural killer cell triggering receptor [Source:VGNC Symbol;Acc:VGNC:32097]
novel.684	-2.059036797	0.088472	-	-
ENSBTAG00000052878	-0.8373506	0.088691	-	-
ENSBTAG00000045645	-2.31669267	0.088894	ATP6V1FNB	ATP6V1F neighbor [Source:NCBI gene;Acc:104972195]
ENSBTAG00000014729	0.636249362	0.088942	MRPL51	mitochondrial ribosomal protein L51 [Source:VGNC Symbol;Acc:VGNC:31646]
ENSBTAG00000010910	0.534564794	0.089014	COPS9	Bos taurus COP9 signalosome subunit 9 (COPS9), mRNA. [Source:RefSeq mRNA;Acc:NM_001195051]
ENSBTAG00000002431	-0.463067882	0.089014	TRIM24	tripartite motif containing 24 [Source:VGNC Symbol;Acc:VGNC:36321]
ENSBTAG00000008753	-0.315760522	0.089014	BRD8	bromodomain containing 8 [Source:NCBI gene;Acc:539896]
ENSBTAG00000020895	0.685735337	0.08913	LOXL4	lysyl oxidase like 4 [Source:VGNC Symbol;Acc:VGNC:55958]

ENSBTAG0000006470	-1.049379207	0.089404	TTBK2	Bos taurus tau tubulin kinase 2 (TTBK2), mRNA. [Source:RefSeq mRNA;Acc:NM_001206071]
ENSBTAG0000003294	0.6510606	0.089449	MRPL43	Bos taurus mitochondrial ribosomal protein L43 (MRPL43), mRNA. [Source:RefSeq mRNA;Acc:NM_174563]
ENSBTAG00000018236	-0.483476971	0.089452	EPB41L5	Bos taurus erythrocyte membrane protein band 4.1 like 5 (EPB41L5), mRNA. [Source:RefSeq mRNA;Acc:NM_001035384]
ENSBTAG0000002883	0.458658555	0.089452	RPTOR	Bos taurus regulatory associated protein of MTOR complex 1 (RPTOR), mRNA. [Source:RefSeq mRNA;Acc:NM_001192130]
ENSBTAG00000050008	-0.583497897	0.089521	-	-
ENSBTAG00000018571	-0.823462691	0.089782	IL1RL1	interleukin 1 receptor like 1 [Source:VGNC Symbol;Acc:VGNC:30134]
ENSBTAG00000037449	-0.790716317	0.089928	ACSM5	acyl-CoA synthetase medium chain family member 5 [Source:VGNC Symbol;Acc:VGNC:25569]
ENSBTAG0000002983	-3.755849885	0.089928	NT5C1A	Bos taurus 5'-nucleotidase, cytosolic IA (NT5C1A), mRNA. [Source:RefSeq mRNA;Acc:NM_001205546]
ENSBTAG0000003635	0.373794152	0.090207	SLC35C2	Bos taurus solute carrier family 35 member C2 (SLC35C2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046174]
novel.930	1.175043498	0.09031	-	-
ENSBTAG00000014918	0.639522063	0.090353	IBA57	Bos taurus IBA57, iron-sulfur cluster assembly (IBA57), mRNA. [Source:RefSeq mRNA;Acc:NM_001205580]
ENSBTAG00000005434	-0.444852006	0.090391	PLVAP	Bos taurus plasmalemma vesicle associated protein (PLVAP), mRNA. [Source:RefSeq mRNA;Acc:NM_001035353]
ENSBTAG00000048728	-3.527934111	0.09043	-	-
ENSBTAG00000051479	-0.649895027	0.090608	-	-
ENSBTAG00000005144	0.658400843	0.090651	PNPLA2	Bos taurus patatin like phospholipase domain containing 2 (PNPLA2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046005]
ENSBTAG00000006471	-0.415073108	0.090651	OSBPL11	oxysterol binding protein like 11 [Source:VGNC Symbol;Acc:VGNC:32459]

ENSBTAG00000003062	-0.74385109	0.0908	FAM160B1	Bos taurus family with sequence similarity 160 member B1 (FAM160B1), mRNA. [Source:RefSeq mRNA;Acc:NM_001077948]
ENSBTAG00000008944	0.803169342	0.090999	CRB1	Bos taurus crumbs 1, cell polarity complex component (CRB1), mRNA. [Source:RefSeq mRNA;Acc:NM_001192482]
ENSBTAG00000006187	-0.735680688	0.091111	MFAP4	Bos taurus microfibril associated protein 4 (MFAP4), mRNA. [Source:RefSeq mRNA;Acc:NM_001080217]
ENSBTAG00000009579	-0.830503039	0.091111	CEP85	centrosomal protein 85 [Source:VGNC Symbol;Acc:VGNC:27216]
ENSBTAG00000008683	-1.454826314	0.091111	LDHA	Bos taurus lactate dehydrogenase A (LDHA), mRNA. [Source:RefSeq mRNA;Acc:NM_174099]
ENSBTAG00000016355	0.692617005	0.091111	UVRAG	Bos taurus UV radiation resistance associated (UVRAG), mRNA. [Source:RefSeq mRNA;Acc:NM_001193026]
ENSBTAG00000016170	-2.42415726	0.091248	KCNJ11	Bos taurus potassium voltage-gated channel subfamily J member 11 (KCNJ11), mRNA. [Source:RefSeq mRNA;Acc:NM_001081598]
ENSBTAG00000017009	0.532595539	0.091248	CMC2	COX assembly mitochondrial protein 2 homolog [Source:NCBI gene;Acc:101905951]
ENSBTAG00000003447	-0.693126163	0.091248	-	-
ENSBTAG00000045857	0.912805021	0.091696	MCRIP2	Bos taurus MAPK regulated corepressor interacting protein 2 (MCRIP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001079511]
novel.982	-0.752940036	0.091728	-	-
ENSBTAG00000049129	1.079014139	0.091728	-	-
ENSBTAG00000008793	0.867352049	0.091858	RNASE1	Bos taurus ribonuclease, RNase A family, 1 (pancreatic) (RNASE1), mRNA. [Source:RefSeq mRNA;Acc:NM_001014386]
novel.218	-2.13095263	0.091966	-	-
ENSBTAG00000005353	-2.316995608	0.091966	DES	Bos taurus desmin (DES), mRNA. [Source:RefSeq mRNA;Acc:NM_001081575]

ENSBTAG00000032557	0.46861086	0.092392	TMEM258	Bos taurus transmembrane protein 258 (TMEM258), mRNA. [Source:RefSeq mRNA;Acc:NM_001195063]
ENSBTAG00000031941	0.592154014	0.092679	PEPD	Bos taurus peptidase D (PEPD), mRNA. [Source:RefSeq mRNA;Acc:NM_001080318]
ENSBTAG00000004091	-0.767849021	0.092838	GTF3C4	Bos taurus general transcription factor IIIC subunit 4 (GTF3C4), mRNA. [Source:RefSeq mRNA;Acc:NM_001192382]
ENSBTAG00000002348	-0.879960845	0.092916	SLC4A4	Bos taurus solute carrier family 4 member 4 (SLC4A4), mRNA. [Source:RefSeq mRNA;Acc:NM_174605]
ENSBTAG00000020616	-0.537918344	0.092916	DGKD	Bos taurus diacylglycerol kinase delta (DGKD), mRNA. [Source:RefSeq mRNA;Acc:NM_001035282]
ENSBTAG00000012058	0.438133649	0.092916	GMDS	GDP-mannose 4,6-dehydratase [Source:VGNC Symbol;Acc:VGNC:55901]
ENSBTAG00000002816	-0.545417065	0.092916	SARM1	sterile alpha and TIR motif containing 1 [Source:VGNC Symbol;Acc:VGNC:34290]
ENSBTAG00000050696	-0.689559149	0.092945	KLHDC3	Bos taurus kelch domain containing 3 (KLHDC3), mRNA. [Source:RefSeq mRNA;Acc:NM_001014966]
ENSBTAG00000012031	1.064397563	0.092945	ATG9B	autophagy related 9B [Source:VGNC Symbol;Acc:VGNC:26263]
ENSBTAG00000040602	0.464627318	0.093006	-	Bos taurus SCAN domain containing 1-like (LOC515042), mRNA. [Source:RefSeq mRNA;Acc:NM_001105370]
ENSBTAG00000007388	0.863385852	0.093065	ZC3H12D	zinc finger CCCH-type containing 12D [Source:VGNC Symbol;Acc:VGNC:37100]
ENSBTAG00000006776	0.682721435	0.093193	KIAA0930	KIAA0930 [Source:VGNC Symbol;Acc:VGNC:30560]
ENSBTAG00000015351	1.088644597	0.09344	STYK1	serine/threonine/tyrosine kinase 1 [Source:VGNC Symbol;Acc:VGNC:35451]
ENSBTAG00000023039	-2.811594604	0.093474	DUSP13	Bos taurus dual specificity phosphatase 13 (DUSP13), mRNA. [Source:RefSeq mRNA;Acc:NM_001163944]
ENSBTAG00000007353	0.994061191	0.093593	DLX4	distal-less homeobox 4 [Source:VGNC Symbol;Acc:VGNC:28100]

ENSBTAG00000005756	0.598910259	0.09368	ZDHC24	zinc finger DHC-type containing 24 [Source:VGNC Symbol;Acc:VGNC:37140]
ENSBTAG000000051738	-1.108570549	0.09368	-	-
ENSBTAG000000015272	0.679544494	0.093767	TSC22D4	TSC22 domain family member 4 [Source:NCBI gene;Acc:524543]
ENSBTAG000000007863	-0.693076135	0.093897	GLS	Bos taurus glutaminase (GLS), mRNA. [Source:RefSeq mRNA;Acc:NM_001077964]
ENSBTAG000000047526	1.204314584	0.094158	GSC2	gooseoid homeobox 2 [Source:HGNC Symbol;Acc:HGNC:4613]
ENSBTAG000000015266	0.543015239	0.094161	SDHAF2	Bos taurus succinate dehydrogenase complex assembly factor 2 (SDHAF2), mRNA. [Source:RefSeq mRNA;Acc:NM_001077045]
novel.479	-1.87082946	0.094174	-	-
ENSBTAG000000038691	0.463035518	0.094209	DPH7	diphthamide biosynthesis 7 [Source:VGNC Symbol;Acc:VGNC:28182]
ENSBTAG000000007415	1.480970819	0.094224	SLC7A8	solute carrier family 7 member 8 [Source:VGNC Symbol;Acc:VGNC:34933]
novel.1233	-3.469395474	0.094228	-	PF03939:Ribosomal protein L23, N-terminal domain
ENSBTAG000000027182	-0.682885919	0.094228	NR3C2	Bos taurus nuclear receptor subfamily 3 group C member 2 (NR3C2), mRNA. [Source:RefSeq mRNA;Acc:NM_001191349]
ENSBTAG000000012157	1.532844596	0.094228	CCDC158	coiled-coil domain containing 158 [Source:VGNC Symbol;Acc:VGNC:26862]
ENSBTAG000000003919	-0.788037626	0.09441	KIAA0408	KIAA0408 [Source:VGNC Symbol;Acc:VGNC:30552]
ENSBTAG000000023283	0.890757102	0.09441	JAML	Bos taurus junction adhesion molecule like (JAML), mRNA. [Source:RefSeq mRNA;Acc:NM_001080250]
ENSBTAG000000015241	0.59765687	0.094488	EPHX2	Bos taurus epoxide hydrolase 2 (EPHX2), mRNA. [Source:RefSeq mRNA;Acc:NM_001075534]
ENSBTAG000000012797	-0.546448846	0.094824	DCUN1D1	Bos taurus defective in cullin neddylation 1 domain containing 1 (DCUN1D1), mRNA. [Source:RefSeq mRNA;Acc:NM_001102233]
ENSBTAG000000018823	0.593724301	0.094853	GRN	granulin precursor [Source:VGNC Symbol;Acc:VGNC:29663]

ENSBTAG00000018176	0.521234907	0.095104	CYBC1	Bos taurus cytochrome b-245 chaperone 1 (CYBC1), mRNA. [Source:RefSeq mRNA;Acc:NM_001078087]
ENSBTAG00000014387	-0.725406058	0.095273	PRKAB2	protein kinase AMP-activated non-catalytic subunit beta 2 [Source:VGNC Symbol;Acc:VGNC:33320]
ENSBTAG00000017788	-0.716709804	0.095305	AKT3	Bos taurus AKT serine/threonine kinase 3 (AKT3), mRNA. [Source:RefSeq mRNA;Acc:NM_001191309]
ENSBTAG00000012278	-0.532577703	0.095305	MTMR12	myotubularin related protein 12 [Source:VGNC Symbol;Acc:VGNC:31739]
ENSBTAG00000009182	-3.400914773	0.095315	CLCN1	chloride voltage-gated channel 1 [Source:VGNC Symbol;Acc:VGNC:27395]
ENSBTAG00000011313	-0.604337669	0.095396	CASP8AP2	caspase 8 associated protein 2 [Source:VGNC Symbol;Acc:VGNC:26785]
ENSBTAG00000021000	-1.13192469	0.095515	USF3	upstream transcription factor family member 3 [Source:VGNC Symbol;Acc:VGNC:53612]
ENSBTAG00000001618	-1.086140083	0.095532	ALPK3	alpha kinase 3 [Source:VGNC Symbol;Acc:VGNC:25849]
ENSBTAG00000047694	0.433694466	0.095726	-	small EDRK-rich factor 2 [Source:NCBI gene;Acc:527852]
ENSBTAG00000011505	-0.58474607	0.09581	RABEP1	Bos taurus rabaptin, RAB GTPase binding effector protein 1 (RABEP1), mRNA. [Source:RefSeq mRNA;Acc:NM_001193161]
ENSBTAG00000013050	-0.671622282	0.095969	ZNF277	zinc finger protein 277 [Source:VGNC Symbol;Acc:VGNC:37237]
ENSBTAG00000016167	0.469214587	0.095969	ATL2	Bos taurus atlastin GTPase 2 (ATL2), mRNA. [Source:RefSeq mRNA;Acc:NM_001242311]
ENSBTAG00000020900	0.604041047	0.096532	RPUSD4	RNA pseudouridine synthase D4 [Source:VGNC Symbol;Acc:VGNC:34157]
ENSBTAG00000043957	0.805297505	0.096875	TDRP	testis development related protein [Source:VGNC Symbol;Acc:VGNC:35723]
ENSBTAG00000006883	-0.429111571	0.096944	EIF4B	Bos taurus eukaryotic translation initiation factor 4B (EIF4B), mRNA. [Source:RefSeq mRNA;Acc:NM_001035028]
ENSBTAG00000015808	-0.511321237	0.096944	ZNF609	Bos taurus zinc finger protein 609 (ZNF609), mRNA. [Source:RefSeq mRNA;Acc:NM_001193023]

ENSBTAG00000021364	-0.599888799	0.096993	TNK2	Bos taurus tyrosine kinase non receptor 2 (TNK2), mRNA. [Source:RefSeq mRNA;Acc:NM_173885]
ENSBTAG00000038842	0.5392152	0.097028	NEDD8	neural precursor cell expressed, developmentally down-regulated 8 [Source:NCBI gene;Acc:286796] Bos taurus transducer of ERBB2, 1 (TOB1), transcript variant 1, mRNA. [Source:RefSeq mRNA;Acc:NM_001077075]
ENSBTAG00000000546	-0.670858295	0.097595	TOB1	
ENSBTAG00000012881	0.527906511	0.097595	EIF4G1	eukaryotic translation initiation factor 4 gamma 1 [Source:VGNC Symbol;Acc:VGNC:28415]
ENSBTAG00000006031	1.056541613	0.097595	ADGRV1	adhesion G protein-coupled receptor V1 [Source:VGNC Symbol;Acc:VGNC:25673]
ENSBTAG00000018214	-3.604453385	0.097659	SHISA2	Bos taurus shisa family member 2 (SHISA2), mRNA. [Source:RefSeq mRNA;Acc:NM_001101265]
ENSBTAG00000039242	-0.854712833	0.097742	ZNF10	zinc finger protein 10 [Source:VGNC Symbol;Acc:VGNC:52850]
ENSBTAG00000007206	-0.72721869	0.097742	STRIP2	striatin interacting protein 2 [Source:VGNC Symbol;Acc:VGNC:35423]
ENSBTAG00000010579	-0.635285823	0.097742	ACADL	Bos taurus acyl-CoA dehydrogenase long chain (ACADL), mRNA. [Source:RefSeq mRNA;Acc:NM_001076936]
ENSBTAG00000012788	0.595495764	0.097742	COX6A1	cytochrome c oxidase subunit VIa polypeptide 1 [Source:NCBI gene;Acc:282199]
ENSBTAG00000015567	0.708880207	0.098042	TIMM44	Bos taurus cortexin 1 (CTXN1), mRNA. [Source:RefSeq mRNA;Acc:NM_001105494]
ENSBTAG00000011787	0.408555055	0.098042	ISCU	Bos taurus iron-sulfur cluster assembly enzyme (ISCU), mRNA. [Source:RefSeq mRNA;Acc:NM_001075683]
ENSBTAG00000047341	-1.569329928	0.098157	-	THO complex subunit 2 [Source:NCBI gene;Acc:100299503]
ENSBTAG00000003378	-1.042049012	0.098157	ACAP2	Bos taurus ArfGAP with coiled-coil, ankyrin repeat and PH domains 2 (ACAP2), mRNA. [Source:RefSeq mRNA;Acc:NM_001105337]

ENSBTAG00000014758	-1.742788813	0.0984	WIF1	Bos taurus WNT inhibitory factor 1 (WIF1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075996]
ENSBTAG00000002728	-0.409816608	0.0984	ARID1B	AT-rich interaction domain 1B [Source:VGNC Symbol;Acc:VGNC:26124]
ENSBTAG00000013247	1.273008631	0.0984	NLRP5	Bos taurus NLR family pyrin domain containing 5 (NLRP5), mRNA. [Source:RefSeq mRNA;Acc:NM_001007814]
ENSBTAG00000016622	-0.503430864	0.0984	TCAIM	Bos taurus T cell activation inhibitor, mitochondrial (TCAIM), mRNA. [Source:RefSeq mRNA;Acc:NM_001102016]
ENSBTAG00000010739	0.695881358	0.098784	BLOC1S2	biogenesis of lysosomal organelles complex 1 subunit 2 [Source:VGNC Symbol;Acc:VGNC:26507]
ENSBTAG00000007269	0.445290369	0.098829	EIF2B1	Bos taurus eukaryotic translation initiation factor 2B subunit alpha (EIF2B1), mRNA. [Source:RefSeq mRNA;Acc:NM_001075743]
ENSBTAG00000019508	-0.433055167	0.098829	SEC61A2	Bos taurus Sec61 translocon alpha 2 subunit (SEC61A2), mRNA. [Source:RefSeq mRNA;Acc:NM_001046524]
ENSBTAG00000008394	-4.250713669	0.098829	MYL3	myosin light chain 3 [Source:VGNC Symbol;Acc:VGNC:31801]
ENSBTAG00000014614	0.737949186	0.098959	ACTA2	actin, alpha 2, smooth muscle, aorta [Source:NCBI gene;Acc:515610]
ENSBTAG00000050219	0.487657808	0.099251	MINOS1	mitochondrial inner membrane organizing system 1 [Source:HGNC Symbol;Acc:HGNC:32068]
ENSBTAG00000019237	0.43073195	0.099251	TXNDC5	Bos taurus thioredoxin domain containing 5 (TXNDC5), mRNA. [Source:RefSeq mRNA;Acc:NM_001206732]
ENSBTAG00000044194	-0.950433059	0.099261	ZDHHC2	zinc finger DHHC-type containing 2 [Source:VGNC Symbol;Acc:VGNC:37135]
ENSBTAG00000013491	0.413430134	0.099654	EML1	echinoderm microtubule associated protein like 1 [Source:VGNC Symbol;Acc:VGNC:53936]
ENSBTAG00000009911	-0.891327026	0.099654	HDC	Bos taurus histidine decarboxylase (HDC), mRNA. [Source:RefSeq mRNA;Acc:NM_001024551]

ENSBTAG0000005871 -0.588297615 0.099939 MECOM

MDS1 and EVI1 complex locus [Source:VGNC
Symbol;Acc:VGNC:31343]

Table 7. Ovine Class 2 to Class 1 muscle tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
novel.1622	3.4334	2.65567E-08	-	PF02798:Glutathione S-transferase, N-terminal domain
ENSOARG00000013748	-0.8225	0.0012	-	-
ENSOARG00000015264	0.9915	0.0032	-	-
novel.2658	-0.7391	0.0070	-	-
ENSOARG00000001985	1.6666	0.0078	-	-
ENSOARG00000015147	1.4512	0.0095	-	-
ENSOARG00000001588	0.9626	0.0174	-	-
ENSOARG00000003717	1.2381	0.0300	-	-
ENSOARG00000003241	1.0307	0.0346	-	-
ENSOARG00000019564	1.2519	0.0346	-	-
ENSOARG00000009215	0.6866	0.0400	-	-
ENSOARG00000010374	0.7737	0.0414	-	-
ENSOARG00000011377	2.2207	0.0417	-	-
ENSOARG00000005916	0.9245	0.0489	-	-
ENSOARG00000001637	1.2222	0.0519	-	-
ENSOARG00000008961	1.5859	0.0624	-	-
novel.331	0.8161	0.0707	-	-
ENSOARG00000003288	1.3998	0.0707	-	-
ENSOARG000000020631	0.7444	0.0767	-	-
novel.2587	1.1658	0.0910	-	-
ENSOARG00000009126	0.5750	0.0910	-	-
ENSOARG00000001170	1.2074	0.0910	-	-
ENSOARG000000011485	-0.3873	0.0910	-	-
ENSOARG00000017329	-0.8923	0.0910	-	-

ENSOARG00000013728	0.5716	0.0972	-	-
novel.1610	1.0478	0.0972	-	-
novel.1517	-0.5154	0.0972	-	-
ENSOARG00000000019	1.0805	0.0972	-	-

Table 8. All DEGs Ovine Class 3 to Class 2 muscle tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSOARG00000001277	-5.7736	1.43759E-17	-	-
ENSOARG000000011486	-4.3263	4.99639E-10	-	-
novel.1716	-2.5750	8.09373E-09	-	-
novel.1620	2.6878	4.5754E-06	-	-
ENSOARG000000012346	-4.5989	1.46155E-05	-	-
ENSOARG000000008849	-1.5107	4.34026E-05	-	-
ENSOARG000000009609	-3.5453	4.34026E-05	-	-
ENSOARG000000012707	2.0123	4.34026E-05	-	-
ENSOARG000000016319	-4.7755	4.67849E-05	-	-
ENSOARG000000004787	-4.1860	4.67849E-05	-	-
ENSOARG000000014701	-1.4182	4.82409E-05	-	-
ENSOARG000000007716	-1.6174	0.0001	-	-
ENSOARG000000020280	1.3327	0.0001	-	-
ENSOARG000000010719	3.4323	0.0001	-	-
novel.2138	-5.7263	0.0001	-	-
ENSOARG000000008705	-2.4056	0.0001	-	-
ENSOARG000000013193	7.3187	0.0001	-	-
novel.1713	-5.3094	0.0001	-	-
ENSOARG000000012189	3.9073	0.0002	-	-
ENSOARG000000014667	-7.9462	0.0002	-	-

ENSOARG00000011858	-5.1757	0.0003	-	-
ENSOARG00000009670	6.3571	0.0003	-	-
ENSOARG00000004500	-1.3651	0.0003	-	-
novel.924	-8.0329	0.0004	-	PF01359:Transposase (partial DDE domain)
ENSOARG00000006780	-1.5836	0.0004	-	-
ENSOARG00000014072	-5.3402	0.0005	-	-
ENSOARG00000008448	2.2988	0.0005	-	-
ENSOARG00000017491	-1.1658	0.0006	-	-
ENSOARG00000010969	1.4864	0.0006	-	-
ENSOARG00000009602	-2.1822	0.0006	-	-
novel.272	-7.3978	0.0007	-	-
ENSOARG00000017167	2.3003	0.0008	-	-
ENSOARG00000009324	2.0787	0.0008	-	-
novel.578	1.6058	0.0009	-	-
ENSOARG00000015212	-1.2541	0.0012	-	-
ENSOARG00000001637	5.6809	0.0012	-	-
ENSOARG00000011505	-1.6445	0.0013	-	-
ENSOARG00000012476	-7.6160	0.0016	-	-
ENSOARG00000020496	2.2984	0.0016	-	-
ENSOARG00000017789	-2.3849	0.0020	-	-
novel.2674	-2.6570	0.0022	-	-
ENSOARG00000016951	5.8169	0.0028	-	-
ENSOARG00000001585	-3.6672	0.0033	-	-
novel.723	-2.0533	0.0034	-	-
ENSOARG00000016331	-6.7591	0.0038	-	-
ENSOARG00000020867	1.9566	0.0040	-	-
novel.3134	-1.3181	0.0042	-	PF07525:SOCS box
ENSOARG00000016924	4.0751	0.0044	-	-

novel.229	-5.5245	0.0052	-	-
ENSOARG00000016534	6.5353	0.0057	-	-
novel.1802	5.5754	0.0057	-	-
ENSOARG00000007693	-2.9742	0.0057	-	-
novel.2651	-3.7141	0.0057	-	-
ENSOARG00000009780	4.4458	0.0057	-	-
ENSOARG00000000641	4.5201	0.0057	-	-
ENSOARG00000000002	4.8019	0.0057	-	-
ENSOARG00000000788	4.8766	0.0057	-	-
novel.1174	4.7163	0.0062	-	-
ENSOARG00000007278	5.0085	0.0063	-	-
ENSOARG00000008015	6.8126	0.0070	-	-
novel.2021	4.1820	0.0071	-	-
ENSOARG00000006657	-3.1722	0.0072	-	-
ENSOARG00000009230	4.4211	0.0073	-	-
ENSOARG00000011072	3.0876	0.0073	-	-
ENSOARG00000007011	2.1179	0.0074	-	-
ENSOARG00000007940	-1.7322	0.0075	-	-
ENSOARG00000015979	-3.7937	0.0076	-	-
ENSOARG00000009341	4.1808	0.0076	-	-
ENSOARG00000000909	2.6619	0.0076	-	-
ENSOARG00000002050	3.6684	0.0082	-	-
ENSOARG00000006122	3.4940	0.0083	-	-
ENSOARG00000015954	1.1538	0.0083	-	-
ENSOARG00000014813	3.9412	0.0085	-	-
ENSOARG00000003742	-1.1825	0.0089	-	-
ENSOARG00000020699	2.1165	0.0090	-	-
ENSOARG00000010845	7.5733	0.0092	-	-

ENSOARG00000003184	4.3854	0.0100	-	-
ENSOARG00000003066	1.6166	0.0100	-	-
ENSOARG00000004395	2.6652	0.0100	-	-
ENSOARG00000001204	5.5272	0.0100	-	-
novel.100	4.6282	0.0101	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000003473	8.3593	0.0103	-	-
ENSOARG000000020797	-2.1141	0.0103	-	-
ENSOARG00000000103	0.9681	0.0103	-	-
ENSOARG00000003707	2.5671	0.0103	-	-
ENSOARG000000019688	2.5423	0.0103	-	-
ENSOARG000000008706	1.9301	0.0103	-	-
novel.2648	2.5831	0.0103	-	-
ENSOARG000000017166	4.5512	0.0103	-	-
ENSOARG000000013290	3.2632	0.0103	-	-
ENSOARG000000008374	-3.4813	0.0103	-	-
ENSOARG000000018803	-2.2101	0.0104	-	-
novel.3315	6.5397	0.0108	-	-
ENSOARG00000003764	1.6646	0.0114	-	-
novel.611	8.7903	0.0114	-	-
ENSOARG000000015960	3.7679	0.0114	-	-
ENSOARG000000020004	1.7447	0.0114	-	-
ENSOARG000000017488	3.5216	0.0115	-	-
ENSOARG000000007598	1.4064	0.0115	-	-
novel.2801	1.3371	0.0115	-	-
ENSOARG000000009754	4.4863	0.0116	-	-
ENSOARG000000018886	-2.1110	0.0116	-	-
ENSOARG000000016306	-3.3835	0.0118	-	-
ENSOARG00000001346	-1.8084	0.0118	-	-

novel.702	-4.5720	0.0124	-	-
ENSOARG00000009151	4.7133	0.0124	-	-
novel.2797	-4.1742	0.0127	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000002742	3.2707	0.0138	-	-
ENSOARG00000002187	3.8718	0.0138	-	-
novel.1369	-1.5391	0.0145	-	PF01055:Glycosyl hydrolases family 31
ENSOARG00000004792	-1.3415	0.0145	-	-
ENSOARG00000012362	2.7492	0.0145	-	-
ENSOARG00000015249	-5.9303	0.0148	-	-
ENSOARG00000004128	2.4171	0.0153	-	-
ENSOARG00000007062	-3.8515	0.0153	-	-
ENSOARG00000004315	1.2734	0.0153	-	-
ENSOARG00000004386	4.7606	0.0154	-	-
ENSOARG00000011378	5.0460	0.0154	-	-
ENSOARG00000014555	-2.9582	0.0155	-	-
ENSOARG00000008060	5.2475	0.0155	-	-
ENSOARG00000006347	-0.8157	0.0157	-	-
ENSOARG00000011474	1.9306	0.0157	-	-
ENSOARG00000007390	3.6066	0.0158	-	-
ENSOARG00000010277	3.2100	0.0160	-	-
ENSOARG00000019163	-7.1654	0.0165	-	-
				PF17655:Inward rectifier potassium channel C-terminal domain PF01007:Inward rectifier potassium channel transmembrane domain
novel.2304	-5.0749	0.0166	-	-
ENSOARG00000013140	2.3600	0.0166	-	-
ENSOARG00000012070	3.7927	0.0166	-	-
ENSOARG00000015885	5.4695	0.0166	-	-
ENSOARG00000017875	3.3146	0.0170	-	-
ENSOARG00000002986	3.1784	0.0170	-	-

ENSOARG00000002613	3.8490	0.0171	-	-
novel.1171	2.1869	0.0175	-	PF10254:PACS-1 cytosolic sorting protein
ENSOARG00000001264	2.7345	0.0175	-	-
ENSOARG00000011150	-1.0307	0.0178	-	-
ENSOARG00000020391	2.9983	0.0178	-	-
ENSOARG00000018445	3.2978	0.0181	-	-
ENSOARG00000005309	2.6890	0.0181	-	-
novel.473	1.8784	0.0185	-	-
ENSOARG00000012381	-1.6351	0.0188	-	-
ENSOARG00000013392	4.9140	0.0188	-	-
ENSOARG00000019098	3.0446	0.0188	-	-
ENSOARG00000000653	-3.4160	0.0188	-	-
ENSOARG00000024080	4.5212	0.0195	-	-
ENSOARG00000019333	4.6675	0.0195	-	-
novel.695	-3.4288	0.0195	-	-
ENSOARG00000008789	-1.5431	0.0195	-	-
ENSOARG00000019910	-0.8673	0.0195	-	-
ENSOARG00000012051	-2.8031	0.0196	-	-
ENSOARG00000010469	-3.8013	0.0196	-	-
ENSOARG00000018988	-4.9909	0.0196	-	-
ENSOARG00000020994	6.6427	0.0198	-	-
ENSOARG00000015715	3.8393	0.0200	-	-
ENSOARG00000021088	3.8185	0.0200	-	-
ENSOARG00000011855	4.1814	0.0200	-	-
ENSOARG00000004028	3.5832	0.0200	-	-
ENSOARG00000016640	2.3661	0.0208	-	-
ENSOARG00000015360	6.7263	0.0208	-	-
ENSOARG00000018650	5.6253	0.0208	-	-

ENSOARG00000016923	7.1928	0.0208	-	-
ENSOARG00000014822	3.0808	0.0208	-	-
ENSOARG00000020580	2.5991	0.0217	-	-
ENSOARG00000020058	2.4107	0.0222	-	-
ENSOARG00000009458	1.3846	0.0222	-	-
ENSOARG00000011230	-0.8302	0.0222	-	-
novel.1561	2.6339	0.0223	-	-
ENSOARG00000009525	4.9463	0.0223	-	-
novel.314	2.8944	0.0223	-	-
novel.2110	3.0149	0.0223	-	-
ENSOARG00000008978	2.3362	0.0224	-	-
ENSOARG00000009738	2.3694	0.0224	-	-
ENSOARG00000016268	2.2071	0.0227	-	-
ENSOARG00000015278	2.6109	0.0228	-	-
ENSOARG00000018591	4.5425	0.0229	-	-
ENSOARG00000020669	-1.1543	0.0229	-	-
ENSOARG00000016434	-5.7099	0.0229	-	-
ENSOARG00000005110	3.0894	0.0230	-	-
novel.738	-5.9260	0.0232	-	-
ENSOARG00000010907	-2.0645	0.0234	-	-
ENSOARG00000014232	3.5558	0.0234	-	-
ENSOARG00000020809	-3.0068	0.0238	-	-
ENSOARG00000003578	3.8239	0.0242	-	-
ENSOARG00000018992	1.8186	0.0242	-	-
ENSOARG00000014989	5.7770	0.0242	-	-
ENSOARG00000002771	7.2666	0.0243	-	-
ENSOARG00000004618	5.8330	0.0243	-	-
ENSOARG00000020616	1.2679	0.0243	-	-

ENSOARG00000012948	2.2642	0.0243	-	-
ENSOARG00000004086	1.8622	0.0247	-	-
ENSOARG00000009627	3.1859	0.0247	-	-
ENSOARG00000018640	-3.8204	0.0248	-	-
novel.2247	-3.3895	0.0248	-	-
ENSOARG00000006058	4.0569	0.0248	-	-
ENSOARG00000011552	-6.9946	0.0248	-	-
ENSOARG00000020509	4.1233	0.0250	-	-
ENSOARG00000000916	4.2891	0.0250	-	-
ENSOARG00000018693	1.3132	0.0250	-	-
ENSOARG00000000800	-3.4235	0.0250	-	-
ENSOARG00000004368	2.4116	0.0251	-	-
ENSOARG00000008148	-3.9418	0.0251	-	-
ENSOARG00000012928	0.7938	0.0251	-	-
novel.1923	6.1055	0.0253	-	-
novel.1256	-5.6891	0.0254	-	PF00053:Laminin EGF domain PF00055:Laminin N-terminal (Domain VI)
novel.315	5.9927	0.0254	-	PF12488:Protein of unknown function (DUF3704)
novel.2667	2.6139	0.0254	-	-
ENSOARG00000005021	3.1355	0.0257	-	-
ENSOARG00000014289	-1.2074	0.0257	-	-
ENSOARG00000020159	3.2466	0.0257	-	-
ENSOARG00000007922	1.9937	0.0257	-	-
novel.1393	-6.6237	0.0267	-	-
ENSOARG00000001339	-4.6455	0.0271	-	-
ENSOARG00000015782	5.4110	0.0273	-	-
ENSOARG00000007603	3.7240	0.0274	-	-
ENSOARG00000003423	-5.7968	0.0277	-	-

ENSOARG00000019578	-1.1872	0.0277	-	-
ENSOARG00000019291	3.6800	0.0277	-	-
ENSOARG00000014570	-3.8893	0.0279	-	-
novel.1113	5.5043	0.0282	-	-
ENSOARG00000001228	3.1240	0.0283	-	-
ENSOARG00000011098	3.0194	0.0284	-	-
ENSOARG00000009969	2.4525	0.0284	-	-
ENSOARG00000003065	2.9997	0.0284	-	-
ENSOARG00000010644	2.5655	0.0287	-	-
ENSOARG00000005543	6.2669	0.0288	-	-
ENSOARG00000009298	2.7525	0.0289	-	-
ENSOARG00000013163	4.0206	0.0290	-	-
ENSOARG00000012699	2.6003	0.0290	-	-
ENSOARG00000003396	2.1555	0.0290	-	-
novel.1841	2.9744	0.0290	-	-
ENSOARG00000010137	3.9391	0.0291	-	-
ENSOARG00000010577	-3.3857	0.0294	-	-
ENSOARG00000012355	2.4708	0.0296	-	-
novel.1778	4.7376	0.0296	-	-
ENSOARG00000004996	4.2414	0.0296	-	-
novel.1096	-2.7548	0.0298	-	-
ENSOARG00000005622	4.3082	0.0299	-	-
ENSOARG00000011998	4.3452	0.0301	-	-
ENSOARG00000020377	1.1338	0.0302	-	-
ENSOARG00000013027	-0.7422	0.0302	-	-
ENSOARG00000008835	1.4051	0.0302	-	-
novel.399	4.1808	0.0303	-	PF01247:Ribosomal protein L35Ae
ENSOARG00000014300	2.7051	0.0303	-	-

novel.2852	3.0284	0.0305	-	PF01042:Endoribonuclease L-PSP
ENSOARG00000017398	-3.9793	0.0309	-	-
ENSOARG00000007567	1.7124	0.0309	-	-
ENSOARG00000020000	6.5656	0.0317	-	-
ENSOARG00000010536	3.2698	0.0317	-	-
ENSOARG00000004429	-2.1767	0.0317	-	-
ENSOARG00000003042	-1.6927	0.0327	-	-
ENSOARG00000010473	3.1310	0.0327	-	-
ENSOARG00000008262	2.4858	0.0327	-	-
ENSOARG00000006670	-2.3994	0.0328	-	-
ENSOARG00000003586	2.3678	0.0328	-	-
ENSOARG00000005941	1.8509	0.0328	-	-
novel.2014	-3.0843	0.0336	-	-
ENSOARG00000013143	2.7657	0.0336	-	-
novel.1489	2.8779	0.0340	-	PF03911:Sec61beta family
ENSOARG00000019328	3.1113	0.0342	-	-
novel.621	2.3805	0.0343	-	-
ENSOARG00000009805	-5.6072	0.0343	-	-
novel.183	-5.4690	0.0346	-	-
ENSOARG00000007175	2.6733	0.0346	-	-
ENSOARG00000006901	2.9948	0.0346	-	-
ENSOARG00000000337	2.0120	0.0350	-	-
ENSOARG00000008994	-6.7528	0.0350	-	-
ENSOARG00000009330	3.4058	0.0352	-	-
ENSOARG00000010786	-2.8078	0.0358	-	-
ENSOARG00000008669	-1.9765	0.0361	-	-
ENSOARG00000012296	2.9172	0.0361	-	-
ENSOARG00000015847	1.7060	0.0361	-	-

ENSOARG00000001213	-1.0240	0.0363	-	-
novel.2207	2.6184	0.0366	-	-
ENSOARG00000014240	2.0292	0.0369	-	-
ENSOARG00000018284	5.9138	0.0370	-	-
ENSOARG00000013884	2.7281	0.0370	-	-
ENSOARG00000015587	2.9754	0.0370	-	-
novel.606	2.6838	0.0371	-	-
ENSOARG00000020025	1.2262	0.0371	-	-
ENSOARG00000003711	1.6259	0.0371	-	-
ENSOARG00000020936	2.4513	0.0375	-	-
ENSOARG00000012624	6.0037	0.0382	-	-
novel.2082	4.8880	0.0382	-	-
novel.2084	-4.3025	0.0382	-	-
ENSOARG00000002065	2.4026	0.0382	-	-
ENSOARG00000012588	-2.6715	0.0382	-	-
ENSOARG00000018343	3.4030	0.0384	-	-
ENSOARG00000002353	-3.8551	0.0384	-	-
ENSOARG00000009344	3.9904	0.0388	-	-
novel.287	2.4622	0.0388	-	-
novel.42	-3.2654	0.0388	-	-
ENSOARG00000002560	3.8981	0.0389	-	-
ENSOARG00000010028	-1.8068	0.0389	-	-
ENSOARG00000008083	2.8573	0.0389	-	-
ENSOARG00000010437	5.3272	0.0390	-	-
ENSOARG00000020533	1.8389	0.0391	-	-
ENSOARG00000004077	1.7111	0.0391	-	-
ENSOARG00000010953	-6.3665	0.0391	-	-
ENSOARG00000013534	2.9551	0.0391	-	-

ENSOARG00000021077	3.0994	0.0393	-	-
ENSOARG00000001227	2.0669	0.0396	-	-
ENSOARG00000003009	1.4645	0.0399	-	-
ENSOARG00000009956	-3.0682	0.0399	-	-
novel.573	-3.0974	0.0399	-	-
ENSOARG00000000535	-1.7325	0.0399	-	-
novel.2242	3.8156	0.0399	-	-
ENSOARG00000009469	2.0089	0.0399	-	-
novel.1963	-3.5501	0.0401	-	-
ENSOARG00000019764	1.2243	0.0401	-	-
ENSOARG00000002548	3.3254	0.0401	-	-
ENSOARG00000017589	2.1626	0.0403	-	-
ENSOARG00000006422	7.4932	0.0406	-	-
novel.15	5.6226	0.0406	-	-
ENSOARG00000000854	3.1669	0.0406	-	-
ENSOARG00000013152	0.9119	0.0406	-	-
ENSOARG00000013593	-0.9718	0.0406	-	-
ENSOARG00000002973	-1.3222	0.0406	-	-
ENSOARG00000009494	-1.1452	0.0411	-	-
ENSOARG00000009983	2.4303	0.0411	-	-
ENSOARG00000004562	-0.8350	0.0411	-	-
ENSOARG00000014292	3.2680	0.0413	-	-
novel.1494	4.0236	0.0413	-	-
ENSOARG00000007929	2.4077	0.0414	-	-
ENSOARG00000019041	2.0566	0.0414	-	-
ENSOARG00000007233	3.9682	0.0417	-	-
ENSOARG00000011225	5.1975	0.0417	-	-
ENSOARG00000010767	2.2742	0.0418	-	-

ENSOARG00000021199	-1.0571	0.0420	-	-
ENSOARG00000014206	2.0267	0.0420	-	-
ENSOARG00000004617	4.4496	0.0423	-	-
ENSOARG00000005291	2.6002	0.0424	-	-
ENSOARG00000019031	2.3407	0.0426	-	-
ENSOARG00000001550	-3.1859	0.0426	-	-
novel.196	6.8900	0.0426	-	-
ENSOARG00000020723	2.5341	0.0430	-	-
ENSOARG00000015233	3.0323	0.0433	-	-
ENSOARG00000010035	3.1680	0.0433	-	-
novel.3290	3.3121	0.0433	-	-
ENSOARG00000006478	1.3165	0.0434	-	-
ENSOARG00000013693	2.6453	0.0434	-	-
ENSOARG00000010098	-1.0029	0.0434	-	-
ENSOARG00000004437	1.0451	0.0434	-	-
novel.407	2.5995	0.0434	-	-
ENSOARG00000003293	3.6880	0.0434	-	-
ENSOARG00000005958	1.5117	0.0434	-	-
ENSOARG00000003236	3.4271	0.0434	-	-
ENSOARG00000018626	3.1004	0.0434	-	-
ENSOARG00000005133	0.8718	0.0434	-	-
ENSOARG00000012535	1.7282	0.0434	-	-
ENSOARG00000003180	4.4123	0.0434	-	-
novel.518	-3.7760	0.0434	-	-
ENSOARG00000004681	2.9356	0.0434	-	-
ENSOARG00000011811	3.2545	0.0435	-	-
ENSOARG00000012075	1.4952	0.0435	-	-

PF00119:ATP synthase A chain|PF00510:Cytochrome c oxidase subunit III|PF00507:NADH-ubiquinone/plastoquinone oxidoreductase, chain 3

novel.1248	3.9186	0.0435	-	-
ENSOARG00000011961	1.2880	0.0435	-	-
ENSOARG00000018336	-1.0030	0.0435	-	-
novel.2607	3.1440	0.0435	-	-
ENSOARG00000018247	3.3134	0.0435	-	-
ENSOARG00000019977	-4.4177	0.0435	-	-
ENSOARG00000019367	4.4871	0.0435	-	-
ENSOARG00000019612	3.4685	0.0435	-	-
ENSOARG00000009728	3.7586	0.0435	-	-
ENSOARG00000005878	3.5409	0.0436	-	-
ENSOARG00000020017	3.2145	0.0436	-	-
ENSOARG00000017833	3.1051	0.0436	-	-
ENSOARG00000013915	3.5802	0.0437	-	-
ENSOARG00000014689	4.2913	0.0440	-	-
ENSOARG00000004502	-1.8140	0.0440	-	-
ENSOARG00000001178	3.3405	0.0440	-	-
ENSOARG00000013757	5.2366	0.0440	-	-
ENSOARG00000013240	3.2621	0.0441	-	-
ENSOARG00000001878	2.0322	0.0444	-	-
ENSOARG00000001865	2.6400	0.0444	-	-
novel.2299	2.8546	0.0444	-	-
ENSOARG00000009744	-3.3678	0.0444	-	-
ENSOARG00000005754	1.5282	0.0444	-	-
ENSOARG00000004823	4.4079	0.0445	-	-
novel.1634	2.8003	0.0453	-	-
ENSOARG00000014405	-6.6168	0.0456	-	-
ENSOARG00000016204	2.9358	0.0456	-	-
ENSOARG00000003068	2.6721	0.0456	-	-

ENSOARG00000009964	2.2945	0.0458	-	-
ENSOARG00000000714	4.0545	0.0463	-	-
ENSOARG00000016322	2.7814	0.0463	-	-
ENSOARG00000019679	-1.3279	0.0464	-	-
ENSOARG00000000114	3.4155	0.0464	-	-
ENSOARG00000018726	7.2534	0.0467	-	-
ENSOARG00000011971	-0.8332	0.0467	-	-
novel.305	5.4679	0.0467	-	-
ENSOARG00000010574	-1.3297	0.0467	-	-
ENSOARG00000003908	1.9851	0.0467	-	-
ENSOARG00000013037	3.5736	0.0467	-	-
ENSOARG00000004529	-6.6170	0.0467	-	-
ENSOARG00000014005	-2.0494	0.0467	-	-
ENSOARG00000011911	4.2176	0.0468	-	-
ENSOARG00000002516	2.6218	0.0468	-	-
ENSOARG00000011369	2.6462	0.0468	-	-
ENSOARG00000015271	3.8363	0.0468	-	-
ENSOARG00000009843	6.7443	0.0468	-	-
ENSOARG00000006024	2.6852	0.0468	-	-
ENSOARG00000020171	5.2132	0.0468	-	-
ENSOARG00000011587	-1.6084	0.0469	-	-
novel.11	3.1324	0.0469	-	-
ENSOARG00000019404	2.6472	0.0469	-	-
novel.1066	3.1912	0.0469	-	-
ENSOARG00000007578	2.8747	0.0470	-	-
ENSOARG00000016955	-1.6581	0.0476	-	-
ENSOARG00000010154	2.1324	0.0476	-	-
ENSOARG00000015497	-3.0976	0.0476	-	-

ENSOARG00000018120	2.6743	0.0476	-	-
ENSOARG00000009200	2.7978	0.0481	-	-
ENSOARG00000010388	2.0024	0.0481	-	-
ENSOARG00000008899	2.8328	0.0481	-	-
ENSOARG00000009659	1.7412	0.0481	-	-
ENSOARG00000015856	3.8453	0.0481	-	-
ENSOARG00000011788	4.6419	0.0481	-	-
ENSOARG00000018464	6.7055	0.0481	-	-
ENSOARG00000018851	2.7010	0.0481	-	-
ENSOARG00000009527	2.6716	0.0481	-	-
ENSOARG00000008437	2.8751	0.0481	-	-
ENSOARG00000002404	2.8532	0.0481	-	-
ENSOARG00000003926	2.9683	0.0481	-	-
ENSOARG00000012672	2.5184	0.0481	-	-
ENSOARG00000003744	4.0441	0.0481	-	-
ENSOARG00000008999	1.1436	0.0481	-	-
ENSOARG000000021125	3.0341	0.0481	-	-
ENSOARG00000009826	-2.1610	0.0481	-	-
ENSOARG00000010925	2.1258	0.0481	-	-
ENSOARG00000001508	3.1892	0.0481	-	-
ENSOARG00000011146	-4.2018	0.0481	-	-
ENSOARG00000004848	3.0373	0.0481	-	-
ENSOARG00000015778	2.3428	0.0481	-	-
novel.2718	3.9109	0.0481	-	-
ENSOARG00000016224	-1.7820	0.0481	-	-
ENSOARG00000008233	2.2974	0.0481	-	-
ENSOARG00000015495	1.9247	0.0481	-	-
ENSOARG00000015642	2.5370	0.0481	-	-

ENSOARG00000005167	2.6463	0.0481	-	-
ENSOARG00000008034	-1.4392	0.0481	-	-
ENSOARG00000006992	2.8300	0.0481	-	-
ENSOARG00000010849	2.6768	0.0481	-	-
ENSOARG00000016318	3.3632	0.0481	-	-
novel.1089	-1.3171	0.0483	-	-
ENSOARG00000015928	2.0216	0.0483	-	-
ENSOARG00000018681	1.9766	0.0483	-	-
ENSOARG00000019419	-1.3608	0.0483	-	-
ENSOARG00000009851	-5.0902	0.0483	-	-
ENSOARG00000008456	3.1537	0.0485	-	-
ENSOARG00000005118	2.5485	0.0489	-	-
ENSOARG00000020702	2.6062	0.0490	-	-
ENSOARG00000003783	1.9245	0.0491	-	-
ENSOARG00000013820	3.5354	0.0491	-	-
ENSOARG00000013208	2.3408	0.0492	-	-
ENSOARG00000007850	3.3899	0.0494	-	-
ENSOARG00000005228	-3.6724	0.0494	-	-
ENSOARG00000018233	-5.0340	0.0494	-	-
ENSOARG00000019661	2.6264	0.0494	-	-
ENSOARG00000013432	3.1034	0.0495	-	-
ENSOARG00000013859	3.5070	0.0500	-	-
novel.608	4.7909	0.0501	-	-
ENSOARG00000008277	2.7209	0.0501	-	-
ENSOARG00000014498	3.5820	0.0501	-	-
novel.1296	-2.7629	0.0501	-	-
ENSOARG00000003788	3.1413	0.0501	-	-
ENSOARG00000001113	2.1036	0.0501	-	-

ENSOARG00000008078	1.7563	0.0501	-	-
ENSOARG00000005514	2.3134	0.0501	-	-
ENSOARG00000024354	6.2311	0.0501	-	-
ENSOARG00000019190	-1.8188	0.0502	-	-
ENSOARG00000000741	3.2135	0.0507	-	-
ENSOARG00000008057	2.3148	0.0507	-	-
novel.639	7.5684	0.0507	-	-
ENSOARG00000021176	-3.0789	0.0517	-	-
ENSOARG00000009516	-2.4094	0.0517	-	-
ENSOARG00000018381	2.8125	0.0518	-	-
ENSOARG00000001704	2.6141	0.0518	-	-
ENSOARG00000003374	-5.5477	0.0518	-	-
ENSOARG00000007320	2.7324	0.0518	-	-
ENSOARG00000016719	1.5056	0.0520	-	-
ENSOARG00000009597	-3.2564	0.0521	-	-
ENSOARG00000016258	2.4072	0.0521	-	-
ENSOARG00000003798	1.5480	0.0521	-	-
ENSOARG00000016260	1.3264	0.0521	-	-
ENSOARG00000015995	0.8106	0.0521	-	-
ENSOARG00000011063	6.5823	0.0521	-	-
ENSOARG00000003124	2.5736	0.0521	-	-
ENSOARG00000017229	4.0328	0.0521	-	-
novel.2456	4.8835	0.0521	-	-
novel.200	7.1491	0.0521	-	-
ENSOARG00000014081	2.4393	0.0521	-	-
ENSOARG00000000810	2.5716	0.0521	-	-
ENSOARG00000009417	7.0397	0.0521	-	-
ENSOARG00000017359	1.1415	0.0521	-	-

ENSOARG00000015727	2.9024	0.0522	-	-
ENSOARG00000007656	2.4784	0.0522	-	-
ENSOARG00000010269	2.4264	0.0522	-	-
ENSOARG00000000914	-2.6588	0.0522	-	-
novel.2725	2.1475	0.0522	-	-
novel.1958	0.8946	0.0522	-	-
ENSOARG00000017825	2.0261	0.0522	-	-
ENSOARG00000000751	3.5154	0.0522	-	-
novel.3133	-6.9351	0.0522	-	-
novel.352	-2.9043	0.0522	-	-
ENSOARG00000020524	-2.4969	0.0522	-	-
ENSOARG00000008996	4.0236	0.0522	-	-
ENSOARG00000010647	2.6428	0.0523	-	-
ENSOARG00000004758	-5.2206	0.0523	-	-
ENSOARG00000007311	7.9520	0.0523	-	-
ENSOARG00000014790	2.4887	0.0523	-	-
ENSOARG00000003793	2.3722	0.0524	-	-
novel.59	5.5225	0.0525	-	-
ENSOARG00000012029	1.1914	0.0526	-	-
ENSOARG00000015214	0.9126	0.0526	-	-
ENSOARG00000018051	-1.1641	0.0526	-	-
ENSOARG00000002285	-1.0662	0.0526	-	-
ENSOARG00000013573	2.5227	0.0526	-	-
ENSOARG00000002620	-2.5054	0.0528	-	-
ENSOARG00000007717	4.4885	0.0528	-	-
ENSOARG00000002096	2.5674	0.0528	-	-
ENSOARG00000013001	-0.9441	0.0532	-	-
ENSOARG00000018731	2.4123	0.0532	-	-

ENSOARG00000004320	1.8848	0.0532	-	-
ENSOARG00000016251	1.4764	0.0533	-	-
ENSOARG00000015184	2.0324	0.0533	-	-
novel.2462	2.2459	0.0533	-	-
ENSOARG00000006800	2.5924	0.0533	-	-
ENSOARG00000011445	2.3954	0.0533	-	-
ENSOARG00000006733	-4.9704	0.0533	-	-
ENSOARG00000004174	1.6048	0.0533	-	-
ENSOARG00000004359	4.7618	0.0533	-	-
ENSOARG00000012271	-1.0195	0.0533	-	-
ENSOARG00000016280	5.3375	0.0533	-	-
ENSOARG00000011670	2.8005	0.0533	-	-
novel.2394	-1.1842	0.0533	-	-
ENSOARG00000008862	-4.1889	0.0533	-	-
ENSOARG00000020697	2.7274	0.0533	-	-
ENSOARG00000003964	2.8778	0.0533	-	-
novel.3083	-5.3774	0.0533	-	-
ENSOARG00000000192	1.6756	0.0533	-	-
ENSOARG00000019636	1.9123	0.0541	-	-
ENSOARG00000007731	1.8656	0.0541	-	-
ENSOARG00000009211	3.3747	0.0541	-	-
ENSOARG00000007971	2.7096	0.0541	-	-
ENSOARG00000021003	3.7599	0.0541	-	-
ENSOARG00000016284	2.4563	0.0541	-	-
ENSOARG00000016271	1.8837	0.0541	-	-
ENSOARG00000009180	1.6511	0.0541	-	-
ENSOARG00000019749	1.0906	0.0541	-	-
ENSOARG00000012153	4.3992	0.0541	-	-

ENSOARG00000012784	1.9702	0.0541	-	-
ENSOARG00000012486	1.9741	0.0541	-	-
ENSOARG00000000276	2.6243	0.0541	-	-
ENSOARG00000013971	1.3879	0.0541	-	-
novel.1378	-2.6572	0.0541	-	-
ENSOARG00000004223	4.2181	0.0541	-	-
ENSOARG00000000685	0.9545	0.0541	-	-
novel.1962	-3.6091	0.0541	-	-
ENSOARG00000018411	2.7040	0.0541	-	-
ENSOARG00000011322	3.1600	0.0541	-	-
ENSOARG00000016662	3.0860	0.0544	-	-
ENSOARG00000009786	2.1565	0.0546	-	-
ENSOARG00000004871	3.2114	0.0546	-	-
novel.262	2.0469	0.0546	-	-
ENSOARG00000000271	3.0912	0.0546	-	-
ENSOARG00000002108	2.4794	0.0546	-	-
novel.3234	2.1309	0.0546	-	-
ENSOARG00000010842	2.4067	0.0546	-	-
ENSOARG00000004813	1.9917	0.0546	-	-
ENSOARG00000004143	-1.6831	0.0546	-	-
novel.3325	2.7188	0.0546	-	-
ENSOARG00000015859	2.2480	0.0547	-	-
ENSOARG00000002307	2.2839	0.0547	-	-
ENSOARG00000010069	1.7641	0.0548	-	-
ENSOARG00000016880	3.2682	0.0548	-	-
ENSOARG00000004078	2.6000	0.0548	-	-
ENSOARG00000006989	2.9414	0.0548	-	-
novel.2337	2.4891	0.0548	-	PF15220:Hypoxia-inducible lipid droplet-associated

ENSOARG00000002882	6.9083	0.0548	-	-
ENSOARG00000011008	2.7435	0.0548	-	-
ENSOARG00000001560	2.6797	0.0548	-	-
ENSOARG00000019022	3.6043	0.0548	-	-
ENSOARG00000006083	2.5986	0.0548	-	-
ENSOARG00000013659	1.4785	0.0548	-	-
ENSOARG00000011582	1.8417	0.0548	-	-
ENSOARG00000002967	2.7930	0.0548	-	-
novel.2252	2.8735	0.0548	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000000445	1.1806	0.0548	-	-
novel.899	2.4606	0.0548	-	PF00096:Zinc finger, C2H2 type
ENSOARG00000012954	-1.5700	0.0548	-	-
ENSOARG00000021079	2.4087	0.0548	-	-
ENSOARG00000020651	3.1770	0.0548	-	-
ENSOARG00000010449	-5.3226	0.0553	-	-
ENSOARG00000005927	-1.0113	0.0553	-	-
ENSOARG00000003292	2.5172	0.0553	-	-
ENSOARG00000006161	1.6183	0.0553	-	-
ENSOARG00000004746	1.4917	0.0553	-	-
novel.1885	2.0798	0.0553	-	-
ENSOARG00000000465	3.1676	0.0553	-	-
ENSOARG00000019871	4.8485	0.0553	-	-
ENSOARG00000006444	-3.2149	0.0561	-	-
ENSOARG00000019945	-0.7791	0.0561	-	-
novel.2338	1.3480	0.0565	-	-
ENSOARG00000023949	4.6437	0.0565	-	-
ENSOARG00000005007	1.9541	0.0565	-	-
ENSOARG00000020573	6.8617	0.0567	-	-

ENSOARG00000014265	1.2396	0.0574	-	-
ENSOARG00000011018	-5.1854	0.0574	-	-
ENSOARG00000000037	2.9371	0.0574	-	-
ENSOARG00000016978	-2.5580	0.0574	-	-
ENSOARG00000007008	4.5799	0.0574	-	-
ENSOARG00000004877	3.3117	0.0574	-	-
ENSOARG00000016559	4.0964	0.0577	-	-
ENSOARG00000000780	1.2813	0.0582	-	-
ENSOARG00000012879	2.5435	0.0582	-	-
ENSOARG00000008964	2.7862	0.0582	-	-
ENSOARG00000011803	3.0576	0.0582	-	-
ENSOARG00000008326	-1.4420	0.0584	-	-
ENSOARG00000014133	-3.1480	0.0584	-	-
novel.487	-3.4959	0.0584	-	-
ENSOARG00000017418	-2.4869	0.0584	-	-
novel.2122	3.8159	0.0584	-	-
ENSOARG00000013899	-3.3585	0.0584	-	-
ENSOARG00000016390	0.9319	0.0584	-	-
ENSOARG00000019622	-6.2090	0.0589	-	-
ENSOARG00000007438	1.4976	0.0589	-	-
ENSOARG00000009921	2.3965	0.0589	-	-
ENSOARG00000013500	-0.9647	0.0589	-	-
ENSOARG00000009158	-1.3533	0.0589	-	-
ENSOARG00000013295	3.1970	0.0589	-	-
ENSOARG00000002499	-1.7194	0.0589	-	-
ENSOARG00000009490	3.2058	0.0589	-	-
ENSOARG00000009644	1.6701	0.0589	-	-
ENSOARG00000012451	1.2839	0.0589	-	-

novel.2858	-3.3117	0.0589	-	-
ENSOARG00000003928	3.8080	0.0589	-	-
ENSOARG00000008793	0.9654	0.0592	-	-
novel.3021	3.3237	0.0592	-	-
novel.396	-1.6587	0.0592	-	-
ENSOARG00000019721	3.1686	0.0592	-	-
ENSOARG00000014123	2.8019	0.0593	-	-
novel.2126	2.7064	0.0593	-	-
novel.1767	-3.3504	0.0593	-	-
ENSOARG00000019141	-1.1954	0.0594	-	-
ENSOARG00000014766	6.0107	0.0595	-	-
novel.2184	2.5769	0.0596	-	-
ENSOARG00000003844	2.9802	0.0596	-	-
ENSOARG00000000875	1.9605	0.0598	-	-
novel.1176	5.7612	0.0598	-	-
ENSOARG00000010505	3.3908	0.0598	-	-
ENSOARG00000012250	0.9589	0.0599	-	-
ENSOARG00000011628	2.4879	0.0599	-	-
ENSOARG00000016495	2.3071	0.0600	-	-
ENSOARG00000011412	1.4805	0.0600	-	-
novel.3362	-0.9419	0.0603	-	PF15895:CAAX box cerebral protein 1
ENSOARG00000010344	1.9611	0.0603	-	-
ENSOARG00000007688	2.3146	0.0605	-	-
ENSOARG00000020153	2.1157	0.0608	-	-
ENSOARG00000013353	2.2704	0.0608	-	-
ENSOARG00000015061	-2.6612	0.0608	-	-
novel.2179	2.3149	0.0608	-	-
novel.1576	-2.6502	0.0611	-	-

ENSOARG00000013886	1.6340	0.0611	-	-
novel.1886	2.2043	0.0611	-	-
ENSOARG00000013916	-1.5985	0.0611	-	-
novel.2886	-2.9531	0.0615	-	-
ENSOARG00000001561	1.2459	0.0615	-	-
ENSOARG00000009293	-6.1351	0.0615	-	-
novel.2575	6.9154	0.0617	-	-
ENSOARG00000017437	-2.7517	0.0617	-	-
ENSOARG00000012752	3.0723	0.0617	-	-
novel.2706	2.4756	0.0618	-	PF00253:Ribosomal protein S14p/S29e
ENSOARG00000008509	0.9942	0.0619	-	-
ENSOARG00000003775	2.3004	0.0619	-	-
ENSOARG00000002422	3.3944	0.0621	-	-
ENSOARG00000010397	1.6616	0.0622	-	-
ENSOARG00000019026	-6.0497	0.0622	-	-
novel.146	3.4806	0.0624	-	-
novel.625	3.8754	0.0627	-	-
ENSOARG00000021013	-2.8429	0.0631	-	-
ENSOARG00000019214	4.0060	0.0634	-	-
ENSOARG00000015790	-0.8351	0.0634	-	-
ENSOARG00000000857	-2.7342	0.0635	-	-
ENSOARG00000022293	2.4071	0.0635	-	-
novel.2945	2.1134	0.0636	-	PF08686:PLAC (protease and lacunin) domain
ENSOARG00000019388	6.7378	0.0637	-	-
ENSOARG00000000056	2.1467	0.0637	-	-
ENSOARG00000008545	5.5247	0.0637	-	-
ENSOARG00000017919	3.0123	0.0639	-	-
ENSOARG00000014915	5.9368	0.0639	-	-

ENSOARG00000016088	-0.6631	0.0639	-	-
ENSOARG00000010057	4.9104	0.0639	-	-
ENSOARG00000002534	-1.1702	0.0639	-	-
ENSOARG00000017992	2.8243	0.0639	-	-
ENSOARG00000010079	3.0755	0.0639	-	-
ENSOARG00000016699	2.2437	0.0639	-	-
ENSOARG00000019759	-0.9706	0.0640	-	-
ENSOARG00000011945	2.2593	0.0641	-	-
ENSOARG00000021090	4.4003	0.0641	-	-
ENSOARG00000001534	2.7822	0.0641	-	-
ENSOARG00000011693	-0.8517	0.0641	-	-
ENSOARG00000016470	2.5371	0.0644	-	-
ENSOARG00000008612	3.0849	0.0644	-	-
ENSOARG00000005036	3.0773	0.0644	-	-
ENSOARG00000019094	4.5530	0.0644	-	-
ENSOARG00000000791	2.4605	0.0646	-	-
ENSOARG00000007779	1.3136	0.0646	-	-
ENSOARG00000012748	-5.4120	0.0646	-	-
ENSOARG00000002211	2.4726	0.0646	-	-
ENSOARG00000009067	4.8231	0.0646	-	-
ENSOARG00000007163	-1.0904	0.0646	-	-
ENSOARG00000005905	-2.7701	0.0646	-	-
ENSOARG00000016618	2.3544	0.0646	-	-
ENSOARG00000009653	2.6802	0.0649	-	-
ENSOARG00000009496	4.0739	0.0649	-	-
ENSOARG00000013947	1.9516	0.0649	-	-
ENSOARG00000010800	-0.9049	0.0649	-	-
novel.1388	3.4672	0.0649	-	-

ENSOARG00000002162	-4.6894	0.0649	-	-
ENSOARG00000007439	2.4901	0.0649	-	-
ENSOARG00000003667	0.5668	0.0649	-	-
ENSOARG00000020769	1.3427	0.0649	-	-
ENSOARG00000012450	1.5074	0.0649	-	-
ENSOARG00000010876	-0.7186	0.0649	-	-
ENSOARG00000014600	1.9575	0.0649	-	-
novel.3038	5.3022	0.0649	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000006807	3.3491	0.0649	-	-
ENSOARG00000016700	1.9595	0.0649	-	-
ENSOARG00000009896	2.4276	0.0649	-	-
ENSOARG00000009555	0.8947	0.0654	-	-
novel.3001	6.3474	0.0654	-	-
ENSOARG00000012304	7.5748	0.0654	-	-
ENSOARG00000004737	2.7936	0.0659	-	-
ENSOARG00000010518	3.5959	0.0659	-	-
novel.3004	2.1049	0.0659	-	-
ENSOARG00000002053	2.6642	0.0659	-	-
ENSOARG00000008365	1.8727	0.0659	-	-
ENSOARG00000020830	1.9120	0.0659	-	-
ENSOARG00000012268	4.5982	0.0659	-	-
ENSOARG00000011417	-2.6963	0.0659	-	-
ENSOARG00000008010	1.7141	0.0659	-	-
novel.2983	1.8890	0.0659	-	-
novel.2800	-3.8572	0.0659	-	-
ENSOARG00000010229	3.2672	0.0661	-	-
novel.726	1.1775	0.0662	-	-
novel.1511	1.2145	0.0662	-	-

ENSOARG00000014275	5.1025	0.0662	-	-
ENSOARG00000008728	2.1354	0.0662	-	-
ENSOARG00000012925	0.6474	0.0662	-	-
ENSOARG00000015628	1.6629	0.0665	-	-
ENSOARG00000019241	-2.8392	0.0665	-	-
ENSOARG00000010944	3.3651	0.0665	-	-
ENSOARG00000010484	2.8898	0.0667	-	-
ENSOARG00000018741	2.5061	0.0668	-	-
ENSOARG00000000519	1.6541	0.0670	-	-
ENSOARG00000016509	1.9918	0.0670	-	-
ENSOARG00000001873	0.7184	0.0670	-	-
novel.450	-2.8630	0.0670	-	-
ENSOARG00000014422	5.9262	0.0670	-	-
ENSOARG00000005814	0.8026	0.0670	-	-
ENSOARG00000006000	0.9366	0.0670	-	-
ENSOARG00000008617	2.9975	0.0670	-	-
ENSOARG00000007488	7.5311	0.0670	-	-
ENSOARG00000000528	7.5311	0.0670	-	-
ENSOARG00000014513	3.7423	0.0670	-	-
ENSOARG00000000439	1.6861	0.0670	-	-
ENSOARG00000009061	2.6069	0.0670	-	-
novel.933	-1.9151	0.0670	-	-
ENSOARG00000010448	-2.6123	0.0675	-	-
ENSOARG00000020252	1.9565	0.0675	-	-
ENSOARG00000000822	1.6975	0.0679	-	-
ENSOARG00000020634	1.5346	0.0679	-	-
ENSOARG00000018669	0.9423	0.0679	-	-
ENSOARG00000002585	1.8615	0.0679	-	-

novel.1590	2.5585	0.0679	-	-
ENSOARG00000001825	-1.8681	0.0679	-	-
ENSOARG000000020963	-2.7594	0.0679	-	-
novel.985	3.5949	0.0679	-	-
ENSOARG00000007819	1.9910	0.0680	-	-
ENSOARG00000000004	3.0061	0.0685	-	-
ENSOARG000000014564	-1.7974	0.0685	-	-
ENSOARG00000004515	2.6612	0.0686	-	-
ENSOARG000000013207	2.1818	0.0693	-	-
ENSOARG000000015615	2.6179	0.0694	-	-
novel.555	1.6973	0.0695	-	-
ENSOARG000000011817	-3.6442	0.0695	-	-
ENSOARG00000007469	5.9828	0.0697	-	-
ENSOARG000000017404	1.8734	0.0697	-	-
ENSOARG000000002587	5.4695	0.0697	-	-
ENSOARG000000015264	-3.6556	0.0697	-	-
ENSOARG00000007553	1.2665	0.0699	-	-
ENSOARG000000011482	-0.9737	0.0700	-	-
ENSOARG000000002902	-0.9658	0.0702	-	-
novel.3044	3.1521	0.0702	-	PF08240:Alcohol dehydrogenase GroES-like domain
ENSOARG000000010977	3.0129	0.0702	-	-
ENSOARG000000003646	2.8850	0.0702	-	-
ENSOARG000000001651	2.0054	0.0702	-	-
ENSOARG000000009260	2.5831	0.0702	-	-
ENSOARG000000010841	1.8378	0.0702	-	-
ENSOARG000000011321	-1.5833	0.0702	-	-
ENSOARG000000014814	1.4867	0.0702	-	-
ENSOARG000000009741	1.9832	0.0702	-	-

ENSOARG00000017752	0.9483	0.0702	-	-
ENSOARG00000012444	2.2589	0.0702	-	-
ENSOARG00000019332	2.7106	0.0703	-	-
ENSOARG00000007449	1.0699	0.0703	-	-
ENSOARG00000022743	-4.5204	0.0704	-	-
ENSOARG00000006925	-0.8043	0.0704	-	-
novel.390	2.3025	0.0704	-	-
novel.1566	-0.7427	0.0709	-	-
ENSOARG00000003886	1.6718	0.0710	-	-
ENSOARG00000007445	2.7621	0.0711	-	-
ENSOARG00000003724	1.9486	0.0711	-	-
ENSOARG00000010136	0.9622	0.0715	-	-
ENSOARG00000015737	2.7434	0.0716	-	-
ENSOARG00000016891	1.8974	0.0716	-	-
ENSOARG00000003644	2.1270	0.0716	-	-
ENSOARG00000020502	0.8141	0.0716	-	-
novel.3282	4.5546	0.0719	-	-
novel.2153	2.4235	0.0719	-	-
ENSOARG00000002475	2.0614	0.0721	-	-
ENSOARG00000021114	2.4294	0.0722	-	-
ENSOARG00000018378	1.6895	0.0724	-	-
ENSOARG00000001079	5.0696	0.0724	-	-
ENSOARG00000012496	1.1053	0.0724	-	-
ENSOARG00000012257	-3.6381	0.0724	-	-
ENSOARG00000009930	-1.0536	0.0724	-	-
ENSOARG00000013305	2.1422	0.0724	-	-
ENSOARG00000007224	2.0239	0.0727	-	-
novel.2417	-2.5344	0.0728	-	-

ENSOARG00000017214	-1.3323	0.0728	-	-
ENSOARG00000008327	2.7133	0.0728	-	-
ENSOARG00000010623	3.7797	0.0729	-	-
ENSOARG00000016160	2.7739	0.0729	-	-
ENSOARG00000014231	-1.2733	0.0729	-	-
ENSOARG00000005079	-1.0847	0.0729	-	-
ENSOARG00000011328	2.0415	0.0729	-	-
ENSOARG00000000807	1.4190	0.0729	-	-
ENSOARG00000012487	7.4155	0.0730	-	-
ENSOARG00000020667	2.6189	0.0730	-	-
novel.2515	-0.9199	0.0730	-	-
ENSOARG00000008348	2.5630	0.0733	-	-
ENSOARG00000004476	3.8242	0.0734	-	-
ENSOARG00000005587	-1.2529	0.0735	-	-
ENSOARG00000012585	-2.8154	0.0736	-	-
ENSOARG00000008372	2.5979	0.0736	-	-
ENSOARG00000001428	1.2706	0.0737	-	-
novel.635	-7.1400	0.0739	-	-
ENSOARG00000017512	1.8111	0.0739	-	-
novel.264	2.7853	0.0739	-	-
ENSOARG00000007635	1.5161	0.0741	-	-
ENSOARG00000004257	1.4522	0.0741	-	-
ENSOARG00000012965	-4.9958	0.0743	-	-
ENSOARG00000017441	2.1032	0.0743	-	-
ENSOARG00000017642	-0.8176	0.0744	-	-
ENSOARG00000006839	7.3912	0.0744	-	-
novel.589	2.7284	0.0745	-	-
ENSOARG00000017954	-1.2702	0.0747	-	-

ENSOARG00000001791	1.4723	0.0748	-	-
ENSOARG00000009347	1.9414	0.0751	-	-
ENSOARG00000017050	3.0879	0.0751	-	-
ENSOARG00000020749	1.9675	0.0751	-	-
ENSOARG00000005350	1.0398	0.0751	-	-
ENSOARG00000011211	4.6393	0.0751	-	-
ENSOARG00000019246	4.6455	0.0751	-	-
ENSOARG00000000269	1.8252	0.0751	-	-
ENSOARG00000011411	-2.8887	0.0752	-	-
ENSOARG00000000486	2.5025	0.0752	-	-
ENSOARG00000006194	-3.4624	0.0752	-	-
ENSOARG00000017246	1.4561	0.0752	-	-
ENSOARG00000005380	-1.2855	0.0752	-	-
ENSOARG00000005271	1.0493	0.0752	-	-
ENSOARG00000017816	-1.0254	0.0752	-	-
ENSOARG00000001858	-0.6941	0.0752	-	-
ENSOARG00000017744	1.7454	0.0754	-	-
ENSOARG00000018107	1.7467	0.0754	-	-
ENSOARG00000009835	-2.2609	0.0754	-	-
ENSOARG00000004797	1.9368	0.0754	-	-
ENSOARG00000022822	-3.4172	0.0754	-	-
ENSOARG00000011081	4.4057	0.0754	-	-
ENSOARG00000019043	-5.6817	0.0754	-	-
novel.2695	-4.9967	0.0754	-	-
ENSOARG00000011904	4.1765	0.0754	-	-
ENSOARG00000005706	1.9021	0.0754	-	-
ENSOARG00000003734	1.7834	0.0755	-	-
ENSOARG00000015888	-0.7460	0.0758	-	-

ENSOARG00000016574	2.0079	0.0760	-	-
ENSOARG00000015478	3.7390	0.0760	-	-
ENSOARG00000009705	4.6543	0.0762	-	-
ENSOARG00000016024	-0.7161	0.0764	-	-
novel.1095	2.2747	0.0765	-	PF01201:Ribosomal protein S8e
ENSOARG00000019978	2.1550	0.0765	-	-
novel.1178	2.4751	0.0766	-	-
ENSOARG00000021073	2.4094	0.0767	-	-
ENSOARG00000004805	3.6877	0.0767	-	-
ENSOARG00000018797	1.4429	0.0768	-	-
novel.267	1.5536	0.0769	-	-
ENSOARG00000006553	2.2587	0.0769	-	-
ENSOARG00000016153	2.7827	0.0771	-	-
ENSOARG00000015314	-1.3148	0.0771	-	-
novel.1658	6.4221	0.0772	-	-
ENSOARG00000017245	1.7187	0.0772	-	-
ENSOARG00000009888	-0.7332	0.0772	-	-
ENSOARG00000003424	3.0885	0.0772	-	-
novel.2513	3.3901	0.0772	-	-
novel.2987	-4.5048	0.0772	-	-
ENSOARG00000006820	-1.0859	0.0777	-	-
ENSOARG00000009107	3.5702	0.0777	-	-
ENSOARG00000014243	2.8566	0.0777	-	-
novel.1117	1.6098	0.0779	-	PF02148:Zn-finger in ubiquitin-hydrolases and other protein
ENSOARG00000010856	1.1679	0.0779	-	-
ENSOARG00000000161	-1.4460	0.0781	-	-
novel.2790	8.6257	0.0787	-	-
ENSOARG00000014916	1.7591	0.0787	-	-

ENSOARG00000013809	2.1201	0.0787	-	-
ENSOARG00000005264	1.5050	0.0787	-	-
ENSOARG00000009599	2.0241	0.0789	-	-
novel.2477	3.4747	0.0789	-	-
ENSOARG00000014977	2.4085	0.0789	-	-
ENSOARG00000013662	-4.2536	0.0789	-	-
ENSOARG00000002757	3.6709	0.0789	-	-
ENSOARG00000014358	2.1383	0.0789	-	-
ENSOARG00000019635	2.6890	0.0789	-	-
ENSOARG00000019146	-2.3542	0.0789	-	-
ENSOARG00000014838	1.7555	0.0789	-	-
ENSOARG00000011051	2.4430	0.0789	-	-
ENSOARG00000008238	1.5280	0.0789	-	-
ENSOARG00000005101	-2.7035	0.0794	-	-
ENSOARG00000000170	-1.1131	0.0794	-	-
ENSOARG00000011968	1.4231	0.0794	-	-
ENSOARG00000007088	-0.8152	0.0794	-	-
ENSOARG00000006370	-2.3206	0.0794	-	-
ENSOARG00000008020	1.6729	0.0794	-	-
ENSOARG00000016736	-1.0156	0.0794	-	-
ENSOARG00000012290	1.9883	0.0794	-	-
ENSOARG00000002228	1.4558	0.0794	-	-
ENSOARG00000005302	1.6201	0.0794	-	-
ENSOARG00000010993	-4.0371	0.0796	-	-
ENSOARG00000010650	-0.9817	0.0796	-	-
ENSOARG00000010999	1.7495	0.0796	-	-
ENSOARG00000006111	2.0267	0.0796	-	-
ENSOARG00000011737	0.7876	0.0796	-	-

ENSOARG00000002845	-1.6185	0.0796	-	-
ENSOARG00000019942	2.0983	0.0796	-	-
ENSOARG00000014399	1.7887	0.0796	-	-
novel.3321	1.3443	0.0797	-	PF04826:Armadillo-like
ENSOARG00000021182	1.6725	0.0797	-	-
ENSOARG00000012880	2.1183	0.0800	-	-
ENSOARG00000020582	2.6600	0.0800	-	-
ENSOARG00000008755	0.7701	0.0800	-	-
ENSOARG00000019839	3.5667	0.0801	-	-
ENSOARG00000002017	1.8643	0.0801	-	-
novel.2966	2.0165	0.0801	-	PF08746:RING-like domain
ENSOARG00000003474	0.5761	0.0802	-	-
ENSOARG00000018653	-5.4684	0.0803	-	-
ENSOARG00000016372	-1.7228	0.0803	-	-
ENSOARG00000009431	2.0469	0.0804	-	-
ENSOARG00000014994	2.0838	0.0804	-	-
ENSOARG00000016899	2.3135	0.0804	-	-
novel.167	7.2633	0.0806	-	-
novel.2748	2.5003	0.0806	-	-
novel.2157	2.8843	0.0807	-	PF15506:OCC1 family
ENSOARG00000018762	1.4873	0.0807	-	-
ENSOARG00000019813	2.0921	0.0809	-	-
ENSOARG00000017869	1.7095	0.0809	-	-
novel.1728	4.9937	0.0809	-	-
ENSOARG00000000265	4.9902	0.0809	-	-
ENSOARG00000018491	-1.6513	0.0812	-	-
ENSOARG00000020834	0.8220	0.0813	-	-
ENSOARG00000008762	2.9965	0.0813	-	-

ENSOARG00000007663	-0.7991	0.0814	-	-
ENSOARG00000003997	5.6459	0.0814	-	-
ENSOARG000000011668	1.1271	0.0814	-	-
ENSOARG000000012825	-3.5670	0.0814	-	-
ENSOARG000000019045	-7.2227	0.0814	-	-
ENSOARG000000015755	1.6065	0.0814	-	-
ENSOARG000000017158	-0.9017	0.0814	-	-
ENSOARG00000006069	2.4676	0.0818	-	-
novel.1104	1.8369	0.0818	-	-
ENSOARG000000010736	2.7081	0.0819	-	-
ENSOARG000000010392	-0.9007	0.0819	-	-
novel.1496	-3.1968	0.0822	-	-
novel.2584	1.1175	0.0823	-	-
novel.2573	1.5540	0.0823	-	-
ENSOARG000000008163	4.7391	0.0823	-	-
novel.84	2.9922	0.0823	-	-
ENSOARG000000020013	-2.0502	0.0827	-	-
ENSOARG00000001444	2.4455	0.0827	-	-
ENSOARG000000008550	3.1024	0.0828	-	-
ENSOARG000000019414	1.1507	0.0828	-	-
novel.1152	-2.8122	0.0829	-	-
ENSOARG000000025182	4.5311	0.0829	-	-
ENSOARG000000020730	-0.8893	0.0834	-	-
ENSOARG000000003939	-2.9542	0.0839	-	-
ENSOARG000000007807	1.1188	0.0839	-	-
ENSOARG000000020010	-0.7465	0.0839	-	-
ENSOARG000000010394	2.4012	0.0839	-	-
ENSOARG000000016161	-0.9863	0.0839	-	-

ENSOARG00000004539	1.5604	0.0839	-	-
ENSOARG00000019574	3.5605	0.0840	-	-
ENSOARG00000014973	1.1223	0.0841	-	-
ENSOARG00000005993	1.2370	0.0841	-	-
ENSOARG00000017273	2.1783	0.0843	-	-
novel.3382	3.2696	0.0843	-	-
ENSOARG00000008268	1.6582	0.0843	-	-
novel.1833	-3.2671	0.0847	-	PF00089:Trypsin
ENSOARG00000015709	2.0126	0.0848	-	-
ENSOARG00000003465	1.7623	0.0848	-	-
ENSOARG00000005506	-1.6398	0.0848	-	-
ENSOARG00000016709	2.9421	0.0848	-	-
novel.2220	6.2876	0.0852	-	-
novel.944	8.4958	0.0853	-	-
ENSOARG00000008280	2.1635	0.0857	-	-
ENSOARG00000005661	-1.0764	0.0857	-	-
ENSOARG00000016300	1.3691	0.0857	-	-
ENSOARG00000011247	5.5330	0.0858	-	-
ENSOARG00000010352	1.7792	0.0862	-	-
ENSOARG00000005926	2.3041	0.0862	-	-
novel.2514	2.0776	0.0862	-	-
ENSOARG00000020932	2.3420	0.0862	-	-
ENSOARG00000015614	1.9313	0.0862	-	-
ENSOARG00000002333	4.2208	0.0863	-	-
novel.459	1.7279	0.0865	-	-
ENSOARG00000020724	2.5331	0.0865	-	-
ENSOARG00000011171	3.3977	0.0869	-	-
ENSOARG00000018303	2.4070	0.0869	-	-

ENSOARG00000018405	0.8579	0.0869	-	-
ENSOARG00000017253	3.4752	0.0870	-	-
ENSOARG00000013448	0.7930	0.0870	-	-
ENSOARG00000010088	2.4385	0.0871	-	-
ENSOARG00000020133	1.8607	0.0871	-	-
ENSOARG00000014870	2.4744	0.0871	-	-
ENSOARG00000019527	-0.8868	0.0871	-	-
ENSOARG00000001069	1.4827	0.0875	-	-
ENSOARG00000010116	2.0634	0.0876	-	-
ENSOARG00000004780	2.6148	0.0879	-	-
novel.1453	1.8964	0.0880	-	-
ENSOARG00000009669	1.7361	0.0880	-	-
ENSOARG00000001963	3.2337	0.0880	-	-
novel.2488	1.4654	0.0880	-	-
ENSOARG00000010074	1.4743	0.0880	-	-
novel.990	1.6326	0.0880	-	-
ENSOARG00000019828	2.0101	0.0880	-	-
ENSOARG00000012966	1.4390	0.0880	-	-
novel.113	1.5811	0.0881	-	-
ENSOARG00000004783	2.5231	0.0883	-	-
ENSOARG00000004246	1.2673	0.0883	-	-
ENSOARG00000012283	-0.8347	0.0887	-	-
ENSOARG00000003190	0.6958	0.0887	-	-
ENSOARG00000008676	-5.3685	0.0887	-	-
novel.1360	-3.6184	0.0888	-	-
ENSOARG00000006716	1.9656	0.0888	-	-
ENSOARG00000007525	1.5032	0.0888	-	-
ENSOARG00000000291	1.7740	0.0888	-	-

ENSOARG00000018889	2.2590	0.0888	-	-
ENSOARG00000017810	1.1932	0.0892	-	-
ENSOARG00000006071	-1.2820	0.0892	-	-
ENSOARG00000013557	-0.9211	0.0892	-	-
ENSOARG00000011985	-2.5533	0.0893	-	-
ENSOARG00000012933	3.0631	0.0893	-	-
ENSOARG00000013466	2.0635	0.0893	-	-
novel.1930	0.9365	0.0894	-	PF12328:Rpp20 subunit of nuclear RNase MRP and P
ENSOARG00000009642	-2.7736	0.0896	-	-
ENSOARG00000013584	1.3759	0.0898	-	-
ENSOARG00000012688	-2.1747	0.0899	-	-
ENSOARG00000010747	3.9481	0.0899	-	-
ENSOARG00000010177	0.8972	0.0899	-	-
ENSOARG00000019965	7.1230	0.0899	-	-
ENSOARG00000003957	1.7039	0.0902	-	-
ENSOARG00000012402	1.1090	0.0902	-	-
ENSOARG00000010458	2.8057	0.0902	-	-
novel.2796	-5.7432	0.0902	-	-
ENSOARG00000013686	0.6997	0.0908	-	-
novel.254	3.3818	0.0908	-	-
ENSOARG00000017524	3.1894	0.0908	-	-
ENSOARG00000020030	2.1316	0.0909	-	-
ENSOARG00000014392	1.6028	0.0909	-	-
ENSOARG00000003689	1.9334	0.0909	-	-
ENSOARG00000000896	-2.7304	0.0909	-	-
ENSOARG00000011096	4.8832	0.0909	-	-
novel.400	-5.8055	0.0909	-	-
novel.140	-3.3288	0.0911	-	-

novel.835	-2.6548	0.0911	-	-
ENSOARG00000013992	2.9392	0.0912	-	-
ENSOARG00000007944	2.5542	0.0914	-	-
ENSOARG00000017647	1.9438	0.0914	-	-
ENSOARG00000016444	2.1912	0.0914	-	-
ENSOARG00000014536	1.6970	0.0916	-	-
ENSOARG00000006265	-1.1423	0.0917	-	-
ENSOARG00000009217	2.3236	0.0917	-	-
ENSOARG00000009478	-1.1757	0.0917	-	-
ENSOARG00000014293	1.2204	0.0917	-	-
ENSOARG00000020084	3.7057	0.0919	-	-
ENSOARG00000005191	1.3070	0.0924	-	-
ENSOARG00000016035	1.3642	0.0925	-	-
ENSOARG00000014336	1.1561	0.0926	-	-
ENSOARG00000008181	4.4109	0.0926	-	-
ENSOARG00000008254	6.1777	0.0926	-	-
ENSOARG00000011967	1.7327	0.0927	-	-
ENSOARG00000000115	2.2797	0.0927	-	-
ENSOARG00000013144	1.8389	0.0927	-	-
novel.2402	2.5535	0.0927	-	PF03921:Intercellular adhesion molecule (ICAM), N-terminal domain
ENSOARG00000008281	2.0871	0.0928	-	-
ENSOARG00000010740	-0.5559	0.0928	-	-
ENSOARG00000000456	1.0251	0.0928	-	-
ENSOARG00000013451	1.4398	0.0928	-	-
ENSOARG00000016339	-2.4690	0.0928	-	-
ENSOARG00000017826	2.4800	0.0928	-	-
ENSOARG00000009032	1.9529	0.0928	-	-
ENSOARG00000014286	-1.1518	0.0931	-	-

novel.36	-2.3739	0.0931	-	-
ENSOARG00000006801	1.7720	0.0932	-	-
ENSOARG00000004211	0.8395	0.0932	-	-
ENSOARG00000016464	5.4278	0.0933	-	-
novel.520	3.5927	0.0933	-	-
ENSOARG00000006843	1.8853	0.0934	-	-
ENSOARG00000020011	-1.0346	0.0934	-	-
ENSOARG00000001372	-2.2501	0.0940	-	-
ENSOARG00000008125	-1.3075	0.0940	-	-
ENSOARG00000002056	1.6709	0.0942	-	-
ENSOARG00000010336	1.0334	0.0948	-	-
ENSOARG00000019161	2.0115	0.0948	-	-
ENSOARG00000013633	-1.3221	0.0948	-	-
ENSOARG00000000094	-2.4063	0.0951	-	-
ENSOARG00000000855	1.7897	0.0953	-	-
ENSOARG00000006246	1.6562	0.0954	-	-
ENSOARG00000003480	1.8125	0.0955	-	-
ENSOARG00000004106	1.5458	0.0957	-	-
ENSOARG00000004544	1.5463	0.0957	-	-
ENSOARG00000013515	1.0115	0.0958	-	-
ENSOARG00000015506	1.5944	0.0959	-	-
ENSOARG00000006778	-3.3794	0.0959	-	-
novel.1558	1.2242	0.0961	-	PF01101:HMG14 and HMG17
ENSOARG00000011414	1.3712	0.0961	-	-
ENSOARG00000011263	0.8081	0.0962	-	-
ENSOARG00000016887	-1.0248	0.0963	-	-
ENSOARG00000002450	5.1367	0.0963	-	-
ENSOARG00000010065	1.3954	0.0969	-	-

ENSOARG00000007945	5.3713	0.0970	-	-
ENSOARG00000006455	-2.2489	0.0971	-	-
ENSOARG000000019139	-1.0948	0.0972	-	-
ENSOARG00000004103	1.4205	0.0973	-	-
ENSOARG000000010889	8.3152	0.0973	-	-
ENSOARG000000013284	1.8069	0.0974	-	-
ENSOARG000000005040	1.7536	0.0974	-	-
ENSOARG000000017328	2.7987	0.0974	-	-
ENSOARG000000015873	-2.2136	0.0977	-	-
ENSOARG000000000763	-2.1558	0.0977	-	-
ENSOARG000000013376	1.6799	0.0977	-	-
ENSOARG000000007327	0.8505	0.0977	-	-
novel.1486	2.1036	0.0977	-	-
ENSOARG000000020540	2.0251	0.0977	-	-
ENSOARG000000004440	1.2879	0.0977	-	-
novel.3358	1.0637	0.0982	-	-
ENSOARG000000000587	-1.7802	0.0989	-	-
novel.1039	2.2850	0.0989	-	PF05466:Brain acid soluble protein 1 (BASP1 protein)
ENSOARG000000000324	-1.0866	0.0989	-	-
ENSOARG000000016798	1.8550	0.0989	-	-
ENSOARG000000005360	1.5738	0.0989	-	-
ENSOARG000000001462	1.2995	0.0989	-	-
ENSOARG000000011342	1.5795	0.0989	-	-
ENSOARG000000019754	2.9268	0.0989	-	-
ENSOARG000000019232	2.2952	0.0989	-	-
ENSOARG000000010286	1.7411	0.0989	-	-
ENSOARG000000018579	2.6687	0.0989	-	-
ENSOARG000000013723	-1.0607	0.0989	-	-

ENSOARG00000001867	-7.2355	0.0991	-	-
ENSOARG00000006021	1.7430	0.0991	-	-
ENSOARG000000012259	2.5727	0.0991	-	-
ENSOARG00000000654	1.3782	0.0991	-	-
ENSOARG000000012229	1.0651	0.0991	-	-
ENSOARG00000006536	1.5483	0.0991	-	-
ENSOARG000000020774	1.7598	0.0991	-	-
ENSOARG00000009225	1.5591	0.0991	-	-
ENSOARG00000009079	1.3023	0.0992	-	-
ENSOARG000000010311	0.5759	0.0993	-	-
ENSOARG000000013804	2.4007	0.0993	-	-
novel.2144	1.7933	0.0993	-	-
ENSOARG00000008943	2.7479	0.0993	-	-
ENSOARG000000015046	1.4513	0.0993	-	-
ENSOARG00000002722	1.3062	0.0996	-	-
ENSOARG000000020149	-2.4643	0.0996	-	-
ENSOARG00000007425	1.0119	0.0998	-	-
ENSOARG00000003618	1.6908	0.0999	-	-
ENSOARG000000011299	-1.1114	0.0999	-	-
ENSOARG00000005925	1.9729	0.0999	-	-
ENSOARG00000007932	1.7633	0.0999	-	-
ENSOARG000000012715	1.5971	0.0999	-	-
ENSOARG000000019345	2.4244	0.0999	-	-

Table 9. All DEGs Ovine Class 3 to Class 1 adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSOARG00000001277	-5.7397	5.12204E-15	-	-
ENSOARG000000011486	-4.5119	1.03917E-07	-	-
ENSOARG000000014072	-6.0036	0.0008	-	-
ENSOARG000000001637	6.9239	0.0008	-	-
ENSOARG000000012707	1.4994	0.0008	-	-
ENSOARG000000012189	4.4244	0.0008	-	-
novel.1716	-2.8782	0.0008	-	-
ENSOARG000000009670	7.1444	0.0008	-	-
novel.272	-8.1245	0.0010	-	-
novel.924	-7.6116	0.0024	-	PF01359:Transposase (partial DDE domain)
ENSOARG000000009609	-3.3611	0.0031	-	-
ENSOARG000000010719	3.6231	0.0035	-	-
ENSOARG000000011858	-5.0230	0.0036	-	-
ENSOARG000000016319	-4.8865	0.0036	-	-
ENSOARG000000014701	-1.4820	0.0047	-	-
novel.229	-5.8385	0.0072	-	-
ENSOARG000000015360	8.8748	0.0072	-	-
ENSOARG000000012346	-5.1147	0.0072	-	-
ENSOARG000000008849	-1.3353	0.0072	-	-
ENSOARG000000018988	-5.2815	0.0072	-	-
novel.1393	-6.9580	0.0072	-	-
ENSOARG000000009602	-2.2603	0.0075	-	-
ENSOARG000000012476	-7.5489	0.0076	-	-
ENSOARG000000013193	6.8850	0.0083	-	-

novel.3315	7.3787	0.0091	-	-
novel.2674	-2.3731	0.0093	-	-
ENSOARG00000007716	-1.7684	0.0097	-	-
ENSOARG00000008994	-6.8039	0.0097	-	-
ENSOARG00000012070	4.6502	0.0097	-	-
ENSOARG00000017131	-1.2894	0.0109	-	-
novel.314	3.1011	0.0110	-	-
ENSOARG00000012362	3.3328	0.0110	-	-
ENSOARG00000015147	2.3005	0.0117	-	-
ENSOARG00000014570	-4.1417	0.0122	-	-
ENSOARG00000006194	-3.7517	0.0133	-	-
ENSOARG00000013048	1.5726	0.0133	-	-
ENSOARG00000009895	-1.4294	0.0133	-	-
ENSOARG00000014240	2.5675	0.0133	-	-
ENSOARG00000014667	-8.4314	0.0134	-	-
ENSOARG00000018640	-4.1963	0.0136	-	-
ENSOARG00000020496	2.3401	0.0144	-	-
ENSOARG00000013160	2.1166	0.0156	-	-
ENSOARG00000012624	7.1726	0.0158	-	-
novel.695	-3.3581	0.0162	-	-
ENSOARG00000010969	1.7003	0.0162	-	-
novel.146	5.3447	0.0162	-	-
ENSOARG00000007233	4.9557	0.0162	-	-
ENSOARG00000005123	3.5164	0.0174	-	-
ENSOARG00000020809	-3.9493	0.0175	-	-
ENSOARG00000006122	4.0625	0.0182	-	-
ENSOARG00000017789	-2.8154	0.0208	-	-
ENSOARG00000011670	4.0877	0.0224	-	-

ENSOARG00000016951	5.7528	0.0224	-	-
novel.2796	-7.3028	0.0224	-	-
ENSOARG00000024080	4.8115	0.0231	-	-
ENSOARG00000020797	-2.3556	0.0264	-	-
ENSOARG00000012075	2.2025	0.0264	-	-
ENSOARG00000007567	1.8539	0.0280	-	-
ENSOARG00000008083	3.3571	0.0280	-	-
ENSOARG00000000641	4.6410	0.0280	-	-
ENSOARG00000018650	6.7144	0.0280	-	-
ENSOARG00000004395	3.2835	0.0281	-	-
ENSOARG00000000916	6.1875	0.0285	-	-
ENSOARG00000015249	-5.9710	0.0292	-	-
ENSOARG00000010643	3.6458	0.0292	-	-
ENSOARG00000009230	4.4742	0.0294	-	-
novel.473	2.3228	0.0294	-	-
novel.1089	-1.8009	0.0294	-	-
ENSOARG00000011150	-1.1275	0.0294	-	-
ENSOARG00000006780	-1.5649	0.0294	-	-
novel.2138	-5.2425	0.0297	-	-
ENSOARG00000007940	-1.6715	0.0297	-	-
ENSOARG00000013143	3.5398	0.0301	-	-
ENSOARG00000018803	-2.4290	0.0301	-	-
novel.1494	4.7612	0.0301	-	-
ENSOARG00000003586	2.3296	0.0302	-	-
ENSOARG00000015212	-1.5336	0.0302	-	-
ENSOARG00000019328	3.4661	0.0303	-	-
ENSOARG00000020479	1.4074	0.0308	-	-
ENSOARG00000017491	-1.3655	0.0308	-	-

novel.1713	-4.9371	0.0311	-	-
novel.702	-4.4016	0.0313	-	-
ENSOARG00000013140	2.7275	0.0314	-	-
ENSOARG00000010577	-3.5771	0.0331	-	-
ENSOARG00000000002	4.8529	0.0335	-	-
ENSOARG00000019098	3.2505	0.0335	-	-
ENSOARG00000005110	3.5860	0.0335	-	-
ENSOARG00000018992	2.3024	0.0335	-	-
ENSOARG00000009097	3.5927	0.0367	-	-
ENSOARG00000015960	4.2192	0.0371	-	-
ENSOARG00000000751	4.3151	0.0372	-	-
ENSOARG00000004617	4.5792	0.0372	-	-
ENSOARG00000017488	3.5888	0.0375	-	-
ENSOARG00000010845	7.3646	0.0384	-	-
ENSOARG00000007944	3.4864	0.0392	-	-
novel.2394	-1.6638	0.0395	-	-
ENSOARG00000007011	2.0954	0.0407	-	-
novel.1174	4.7107	0.0416	-	-
ENSOARG00000003184	4.4027	0.0416	-	-
ENSOARG00000002328	6.5147	0.0416	-	-
ENSOARG00000020669	-1.3268	0.0416	-	-
ENSOARG00000019622	-6.2955	0.0416	-	-
ENSOARG00000002613	4.1933	0.0420	-	-
novel.2648	2.9026	0.0425	-	-
ENSOARG00000017816	-1.3542	0.0439	-	-
ENSOARG00000007603	4.2830	0.0450	-	-
ENSOARG00000019688	2.4750	0.0450	-	-
ENSOARG00000002007	3.5629	0.0450	-	-

ENSOARG00000004429	-1.9038	0.0450	-	-
ENSOARG00000006657	-3.1947	0.0455	-	-
novel.2797	-4.5277	0.0458	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000018886	-2.1989	0.0465	-	-
novel.578	1.5416	0.0477	-	-
ENSOARG00000005941	2.3371	0.0480	-	-
novel.2667	2.7619	0.0480	-	-
ENSOARG00000007390	3.6425	0.0480	-	-
ENSOARG00000002187	4.4160	0.0480	-	-
ENSOARG00000009659	2.1235	0.0480	-	-
ENSOARG00000019612	3.8849	0.0480	-	-
ENSOARG00000007062	-3.6565	0.0480	-	-
ENSOARG00000012699	2.9431	0.0484	-	-
novel.723	-1.7170	0.0484	-	-
novel.1113	6.5319	0.0491	-	-
ENSOARG00000003066	1.6528	0.0498	-	-
novel.2668	-8.2866	0.0504	-	-
ENSOARG00000020004	1.8947	0.0504	-	-
ENSOARG00000010767	2.6624	0.0504	-	-
ENSOARG00000019043	-6.2532	0.0504	-	-
ENSOARG00000008669	-2.0481	0.0504	-	-
novel.2247	-3.1784	0.0504	-	-
ENSOARG00000016434	-5.9663	0.0504	-	-
ENSOARG00000008706	2.1993	0.0504	-	-
ENSOARG00000011098	3.4987	0.0504	-	-
ENSOARG00000003180	8.1354	0.0510	-	-
ENSOARG00000006427	1.6143	0.0510	-	-
ENSOARG00000016924	3.7461	0.0512	-	-

ENSOARG00000004500	-1.5111	0.0512	-	-
ENSOARG00000010394	2.8142	0.0517	-	-
ENSOARG00000010283	3.3719	0.0521	-	-
ENSOARG00000008262	2.4187	0.0521	-	-
novel.1369	-1.6707	0.0535	-	PF01055:Glycosyl hydrolases family 31
ENSOARG00000018693	1.5734	0.0542	-	-
ENSOARG00000007320	3.9352	0.0542	-	-
ENSOARG00000020058	2.5979	0.0542	-	-
ENSOARG00000015954	1.1271	0.0542	-	-
ENSOARG00000014292	3.7501	0.0543	-	-
ENSOARG00000020495	3.3630	0.0547	-	-
novel.1171	2.4249	0.0547	-	PF10254:PACS-1 cytosolic sorting protein
ENSOARG00000010277	3.5534	0.0547	-	-
ENSOARG00000004128	2.5368	0.0547	-	-
ENSOARG00000014081	3.4183	0.0547	-	-
ENSOARG00000017919	3.4687	0.0547	-	-
ENSOARG00000014846	4.5451	0.0547	-	-
ENSOARG00000010473	3.6111	0.0547	-	-
ENSOARG00000003578	3.9420	0.0547	-	-
ENSOARG00000000019	3.9128	0.0547	-	-
novel.2021	4.9086	0.0547	-	-
ENSOARG00000015152	1.6342	0.0547	-	-
ENSOARG00000006024	3.3457	0.0547	-	-
ENSOARG00000009151	4.5653	0.0548	-	-
novel.3134	-1.4242	0.0548	-	PF07525:SOCS box
novel.611	6.9944	0.0548	-	-
ENSOARG00000018343	3.8128	0.0548	-	-
ENSOARG00000007278	4.5699	0.0553	-	-

ENSOARG00000021088	3.9465	0.0554	-	-
ENSOARG00000011678	1.3595	0.0559	-	-
ENSOARG00000001585	-3.0596	0.0559	-	-
ENSOARG00000004028	3.7705	0.0559	-	-
ENSOARG00000016306	-3.5896	0.0563	-	-
ENSOARG00000007663	-0.9285	0.0563	-	-
ENSOARG00000016776	-1.6339	0.0574	-	-
ENSOARG00000008817	-2.2589	0.0574	-	-
novel.1039	3.4187	0.0587	-	PF05466:Brain acid soluble protein 1 (BASP1 protein)
ENSOARG00000004368	2.7231	0.0592	-	-
ENSOARG00000015278	2.7983	0.0592	-	-
ENSOARG00000019333	4.6343	0.0592	-	-
novel.2330	1.3278	0.0592	-	-
ENSOARG00000001079	6.0851	0.0601	-	-
ENSOARG00000015885	6.9478	0.0603	-	-
ENSOARG00000011505	-1.5111	0.0618	-	-
ENSOARG00000019367	5.9747	0.0624	-	-
ENSOARG00000018741	2.8522	0.0629	-	-
ENSOARG00000009754	4.5124	0.0629	-	-
ENSOARG00000002482	1.9144	0.0629	-	-
novel.1767	-3.2668	0.0629	-	-
ENSOARG00000011587	-1.9096	0.0629	-	-
ENSOARG00000008835	1.5760	0.0629	-	-
ENSOARG00000010946	6.3082	0.0629	-	-
ENSOARG00000001748	-0.9925	0.0629	-	-
ENSOARG00000014232	3.6036	0.0629	-	-
ENSOARG00000007929	2.6918	0.0629	-	-
ENSOARG00000005236	4.8240	0.0629	-	-

ENSOARG00000016640	2.3391	0.0629	-	-
ENSOARG00000015405	6.0185	0.0629	-	-
ENSOARG00000018445	3.4483	0.0640	-	-
ENSOARG00000003293	4.1064	0.0640	-	-
ENSOARG00000012948	2.1950	0.0640	-	-
novel.484	-3.1695	0.0640	-	-
ENSOARG00000019966	1.3334	0.0645	-	-
ENSOARG00000009298	3.0654	0.0645	-	-
ENSOARG00000005958	1.7129	0.0649	-	-
novel.59	5.8798	0.0649	-	-
ENSOARG00000010069	1.8412	0.0649	-	-
ENSOARG00000003844	3.7195	0.0649	-	-
ENSOARG00000001865	2.9571	0.0649	-	-
novel.3044	5.0521	0.0649	-	PF08240:Alcohol dehydrogenase GroES-like domain
ENSOARG00000003036	2.3136	0.0649	-	-
novel.777	-5.6704	0.0651	-	-
ENSOARG00000008996	5.4917	0.0664	-	-
novel.100	3.7901	0.0673	-	PF00078:Reverse transcriptase (RNA-dependent DNA polymerase)
ENSOARG00000014800	2.7681	0.0673	-	-
ENSOARG00000001204	4.9865	0.0679	-	-
ENSOARG00000020377	1.2393	0.0680	-	-
ENSOARG00000008050	6.2660	0.0680	-	-
ENSOARG00000008015	5.9581	0.0680	-	-
ENSOARG00000010977	4.3217	0.0680	-	-
ENSOARG00000003783	2.2970	0.0682	-	-
ENSOARG00000015177	3.2296	0.0684	-	-
ENSOARG00000013163	3.9434	0.0687	-	-
ENSOARG00000013152	1.1111	0.0688	-	-

ENSOARG00000009744	-3.5036	0.0689	-	-
ENSOARG00000010953	-6.8941	0.0694	-	-
ENSOARG00000007427	3.4573	0.0694	-	-
ENSOARG00000008060	4.9561	0.0694	-	-
ENSOARG000000020699	2.1137	0.0694	-	-
ENSOARG00000006347	-1.4691	0.0694	-	-
ENSOARG000000013269	-3.3808	0.0694	-	-
ENSOARG000000013757	6.7839	0.0694	-	-
ENSOARG000000014813	3.6041	0.0694	-	-
ENSOARG000000019977	-4.1396	0.0694	-	-
ENSOARG000000004787	-3.6881	0.0698	-	-
ENSOARG000000001228	3.3080	0.0702	-	-
ENSOARG000000011945	2.5487	0.0705	-	-
ENSOARG000000002422	4.1875	0.0705	-	-
ENSOARG000000010458	3.2408	0.0707	-	-
ENSOARG000000001878	2.5086	0.0709	-	-
ENSOARG000000010536	3.4503	0.0711	-	-
ENSOARG000000002211	2.8863	0.0712	-	-
ENSOARG000000004871	3.6531	0.0712	-	-
ENSOARG000000020867	1.8690	0.0712	-	-
ENSOARG000000010944	3.6766	0.0712	-	-
ENSOARG000000009964	3.4462	0.0713	-	-
ENSOARG000000008899	3.1497	0.0724	-	-
ENSOARG0000000011803	3.4172	0.0725	-	-
novel.2651	-3.5683	0.0726	-	-
ENSOARG000000001508	3.5318	0.0728	-	-
ENSOARG000000003744	4.5303	0.0728	-	-
ENSOARG0000000013693	2.7952	0.0728	-	-

novel.2402	3.2750	0.0743	-	PF03921:Intercellular adhesion molecule (ICAM), N-terminal domain
ENSOARG00000020994	7.5913	0.0743	-	-
ENSOARG00000014555	-3.2174	0.0743	-	-
novel.2082	6.6934	0.0743	-	-
ENSOARG00000018591	5.0014	0.0753	-	-
ENSOARG00000014790	2.7783	0.0753	-	-
ENSOARG00000016024	-0.8700	0.0761	-	-
ENSOARG00000017524	4.2202	0.0761	-	-
ENSOARG00000016923	7.5635	0.0766	-	-
ENSOARG00000009705	6.6620	0.0769	-	-
ENSOARG00000013899	-3.6935	0.0769	-	-
ENSOARG00000017253	3.8777	0.0769	-	-
ENSOARG00000005514	2.4728	0.0769	-	-
ENSOARG00000014870	3.6092	0.0769	-	-
novel.621	2.3421	0.0776	-	-
ENSOARG00000000854	3.2325	0.0778	-	-
ENSOARG00000010907	-2.2648	0.0792	-	-
novel.2084	-4.4406	0.0802	-	-
ENSOARG00000010231	3.9281	0.0805	-	-
ENSOARG00000007449	1.2948	0.0811	-	-
ENSOARG00000009969	2.5589	0.0811	-	-
novel.589	3.6190	0.0815	-	-
ENSOARG00000010644	2.5617	0.0815	-	-
ENSOARG00000005021	3.1373	0.0815	-	-
ENSOARG00000014689	5.0936	0.0817	-	-
ENSOARG00000004077	2.1552	0.0817	-	-
novel.3325	3.0906	0.0821	-	-
ENSOARG00000011855	3.9010	0.0823	-	-

ENSOARG00000003964	3.3587	0.0824	-	-
ENSOARG00000018820	1.6997	0.0824	-	-
ENSOARG00000019404	2.8610	0.0824	-	-
ENSOARG00000020249	2.6023	0.0832	-	-
ENSOARG00000004515	3.0540	0.0836	-	-
ENSOARG00000012588	-2.7589	0.0836	-	-
ENSOARG00000005380	-1.4664	0.0836	-	-
ENSOARG00000004223	4.6409	0.0836	-	-
ENSOARG00000007693	-2.9229	0.0836	-	-
ENSOARG00000011811	3.2409	0.0836	-	-
ENSOARG00000003926	3.3590	0.0836	-	-
ENSOARG00000009738	2.4059	0.0836	-	-
ENSOARG00000020509	4.2051	0.0836	-	-
ENSOARG00000014206	2.1779	0.0836	-	-
ENSOARG00000008448	2.2800	0.0836	-	-
ENSOARG00000016618	2.6112	0.0844	-	-
ENSOARG00000015431	-0.8072	0.0844	-	-
ENSOARG00000003742	-1.3241	0.0844	-	-
ENSOARG00000021090	4.9540	0.0844	-	-
ENSOARG00000017875	3.2001	0.0848	-	-
ENSOARG00000002742	2.9662	0.0851	-	-
ENSOARG00000009525	4.9130	0.0860	-	-
ENSOARG00000009627	3.0949	0.0860	-	-
ENSOARG00000011445	2.8884	0.0860	-	-
ENSOARG00000006670	-2.4432	0.0860	-	-
ENSOARG00000007850	3.9813	0.0860	-	-
novel.1833	-3.4943	0.0860	-	PF00089:Trypsin
ENSOARG00000016326	-1.1780	0.0860	-	-

ENSOARG00000005037	2.6990	0.0860	-	-
ENSOARG00000002050	3.1360	0.0860	-	-
ENSOARG000000014005	-2.3239	0.0860	-	-
ENSOARG00000003724	2.5308	0.0860	-	-
ENSOARG000000011022	2.1368	0.0860	-	-
novel.42	-3.3650	0.0860	-	-
novel.36	-2.9849	0.0860	-	-
ENSOARG000000012444	2.6422	0.0860	-	-
ENSOARG00000002986	3.2234	0.0860	-	-
novel.2207	2.7199	0.0869	-	-
ENSOARG000000019419	-1.4503	0.0869	-	-
ENSOARG000000013052	1.7102	0.0869	-	-
novel.1561	2.4917	0.0869	-	-
ENSOARG000000021077	3.2052	0.0871	-	-
ENSOARG000000016322	2.9724	0.0871	-	-
ENSOARG00000003711	1.3633	0.0871	-	-
ENSOARG000000019291	3.4333	0.0871	-	-
ENSOARG000000008789	-1.6819	0.0871	-	-
ENSOARG000000009741	2.5487	0.0871	-	-
ENSOARG000000009490	3.6706	0.0871	-	-
ENSOARG000000012535	1.9168	0.0871	-	-
ENSOARG000000015314	-1.2530	0.0871	-	-
ENSOARG000000000271	3.0221	0.0881	-	-
ENSOARG000000019190	-1.9880	0.0881	-	-
ENSOARG000000016899	2.6931	0.0881	-	-
novel.520	4.5474	0.0882	-	-
novel.2462	2.1786	0.0882	-	-
ENSOARG000000005309	2.7211	0.0899	-	-

ENSOARG00000001560	3.0186	0.0899	-	-
ENSOARG00000016534	5.7181	0.0899	-	-
ENSOARG00000004837	-3.6311	0.0908	-	-
ENSOARG00000020025	1.3354	0.0909	-	-
ENSOARG00000014289	-1.4882	0.0913	-	-
novel.3290	3.3985	0.0913	-	PF00119:ATP synthase A chain PF00510:Cytochrome c oxidase subunit III PF00507:NADH-ubiquinone/plastoquinone oxidoreductase, chain 3
ENSOARG00000002096	2.7782	0.0913	-	-
ENSOARG00000019578	-1.2421	0.0917	-	-
ENSOARG00000017642	-1.0013	0.0933	-	-
ENSOARG00000001170	3.0046	0.0933	-	-
ENSOARG00000005167	3.0797	0.0937	-	-
ENSOARG00000011513	2.0072	0.0937	-	-
ENSOARG00000013305	3.0729	0.0937	-	-
ENSOARG00000014989	4.3146	0.0938	-	-
novel.399	3.9779	0.0938	-	PF01247:Ribosomal protein L35Ae
novel.1248	4.1797	0.0938	-	-
ENSOARG00000011474	1.9260	0.0938	-	-
ENSOARG00000012672	2.8000	0.0942	-	-
ENSOARG00000006370	-2.8610	0.0949	-	-
ENSOARG00000004086	2.0164	0.0949	-	-
novel.1634	2.9801	0.0949	-	-
ENSOARG00000016700	2.4057	0.0956	-	-
novel.3133	-7.0513	0.0957	-	-
ENSOARG00000000114	3.6931	0.0959	-	-
ENSOARG00000025170	-5.3238	0.0959	-	-
ENSOARG00000006553	2.6528	0.0959	-	-
novel.50	-5.8508	0.0959	-	-

ENSOARG00000003009	1.3597	0.0959	-	-
ENSOARG00000007175	2.7515	0.0959	-	-
ENSOARG00000006058	4.4368	0.0959	-	-
ENSOARG00000000269	2.2815	0.0959	-	-
ENSOARG00000000714	4.2760	0.0959	-	-
ENSOARG000000020153	2.4850	0.0960	-	-
ENSOARG00000004618	5.6773	0.0962	-	-
ENSOARG000000015715	3.7568	0.0962	-	-
ENSOARG000000017833	3.2099	0.0962	-	-
ENSOARG000000009653	3.3119	0.0962	-	-
ENSOARG00000006069	2.4315	0.0966	-	-
ENSOARG000000019232	2.5672	0.0966	-	-
ENSOARG000000009341	3.8463	0.0966	-	-
ENSOARG00000000535	-1.5843	0.0972	-	-
ENSOARG000000001188	5.4845	0.0972	-	-
ENSOARG000000009769	2.5267	0.0972	-	-
ENSOARG000000013820	4.1199	0.0972	-	-
novel.1576	-3.2934	0.0972	-	-
ENSOARG000000009947	1.5126	0.0972	-	-
ENSOARG000000000004	3.1557	0.0978	-	-
novel.1939	2.7826	0.0979	-	-
ENSOARG000000002065	2.4390	0.0979	-	-
ENSOARG000000016204	3.0554	0.0979	-	-
ENSOARG000000012381	-1.4825	0.0979	-	-
novel.3021	3.9226	0.0979	-	-
novel.170	2.3330	0.0979	-	-
ENSOARG000000008862	-4.1298	0.0979	-	-
ENSOARG000000016706	1.7918	0.0979	-	-

ENSOARG00000004619	3.3530	0.0979	-	-
ENSOARG00000007991	1.7552	0.0979	-	-
novel.2166	5.7105	0.0987	-	PF00089:Trypsin
novel.1388	4.6594	0.0987	-	-
ENSOARG00000001704	2.6996	0.0987	-	-
novel.2477	5.6000	0.0987	-	-
ENSOARG00000013001	-0.9818	0.0987	-	-
ENSOARG00000006626	2.3882	0.0987	-	-
ENSOARG00000009067	5.5766	0.0987	-	-
ENSOARG00000003341	3.4019	0.0987	-	-
ENSOARG00000020769	1.5128	0.0987	-	-
ENSOARG00000019022	4.0750	0.0987	-	-
novel.487	-3.4217	0.0988	-	-

Table 10. All DEGs Ovine Class 2 to Class 1 adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
novel.2733	-3.5531	0.0005	-	-
ENSOARG00000016799	4.1322	0.0036	-	-
novel.2007	5.3026	0.0142	-	-
ENSOARG00000019120	3.2081	0.0209	-	-
ENSOARG00000011743	1.5344	0.0209	-	-
novel.777	-3.6338	0.0238	-	-
ENSOARG00000014436	6.0749	0.0238	-	-
ENSOARG00000008913	5.1628	0.0284	-	-
novel.921	2.8698	0.0284	-	PF17655:Inward rectifier potassium channel C-terminal domain PF01007:Inward rectifier potassium channel transmembrane domain
ENSOARG00000004925	3.3328	0.0284	-	-
ENSOARG00000001823	5.5112	0.0284	-	-
ENSOARG00000008297	2.6005	0.0284	-	-
ENSOARG00000007924	2.2230	0.0313	-	-
ENSOARG00000015145	3.8114	0.0426	-	-
ENSOARG00000008046	-3.8284	0.0518	-	-
ENSOARG00000003709	3.8397	0.0518	-	-
ENSOARG00000018812	3.7279	0.0597	-	-
ENSOARG00000008659	2.3835	0.0597	-	-
ENSOARG00000007315	2.8069	0.0597	-	-
ENSOARG00000000820	4.1089	0.0603	-	-

Table 11. All DEGs Ovine Class 3 to Class 2 adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSOARG00000006374	1.7363	0.0104	-	-
ENSOARG00000000006	-2.2225	0.0316	-	-
ENSOARG00000004668	-0.8449	0.0316	-	-
ENSOARG00000009727	2.4328	0.0331	-	-
ENSOARG00000000296	1.8660	0.0369	-	-
novel.2046	2.8934	0.0727	-	-
ENSOARG00000016250	-0.8130	0.0765	-	-
ENSOARG00000013519	0.4643	0.0765	-	-
ENSOARG00000009090	-1.1736	0.0765	-	-
ENSOARG00000011595	-0.7506	0.0765	-	-
ENSOARG00000009444	-0.7113	0.0765	-	-
ENSOARG00000000648	0.6017	0.0765	-	-
ENSOARG00000010615	-0.8740	0.0765	-	-

Table 12. All DEGs Ovine Class 3 to Class 1 adipose tissue

Gene Code	log2FoldChange	padj	Gene Abbreviation	Gene Name
ENSOARG00000000857	5.0611	3.26E-07	-	-
ENSOARG000000008913	4.4211	3.26E-07	-	-
ENSOARG000000012585	4.3695	7.53E-07	-	-
ENSOARG000000001823	4.3193	7.53E-07	-	-
novel.2733	-4.1516	9.47E-06	-	-
ENSOARG000000009119	2.8278	8.58E-05	-	-
ENSOARG000000011783	3.1949	0.0003	-	-
ENSOARG000000009143	4.9604	0.0003	-	-
ENSOARG000000004933	-1.8372	0.0016	-	-
ENSOARG000000011575	3.1682	0.0016	-	-
ENSOARG000000004312	3.1393	0.0017	-	-
ENSOARG0000000020185	2.7121	0.0017	-	-
ENSOARG000000016799	3.7106	0.0019	-	-
ENSOARG000000000611	2.9181	0.0031	-	-
ENSOARG000000008297	2.3782	0.0031	-	-
ENSOARG000000017449	3.9380	0.0032	-	-
ENSOARG000000017398	5.0718	0.0090	-	-
ENSOARG000000001755	1.6712	0.0106	-	-
ENSOARG000000007924	2.3184	0.0106	-	-
ENSOARG000000016062	1.7729	0.0106	-	-
ENSOARG000000007618	1.2896	0.0106	-	-
ENSOARG000000000006	-1.3934	0.0108	-	-

ENSOARG00000000820	2.8472	0.0120	-	-
ENSOARG00000019120	2.9870	0.0120	-	-
ENSOARG00000000037	-2.4822	0.0126	-	-
ENSOARG00000013747	2.4646	0.0152	-	-
novel.2007	4.6945	0.0152	-	-
ENSOARG00000007775	1.1651	0.0152	-	-
ENSOARG00000006766	-1.8226	0.0157	-	-
ENSOARG00000004806	1.3467	0.0171	-	-
ENSOARG00000011542	-1.3863	0.0171	-	-
ENSOARG00000018093	3.1921	0.0171	-	-
ENSOARG00000004925	2.8626	0.0171	-	-
ENSOARG00000009090	-1.5882	0.0171	-	-
novel.2330	1.1475	0.0171	-	-
ENSOARG00000014146	-0.6469	0.0171	-	-
ENSOARG00000006867	2.4288	0.0171	-	-
ENSOARG00000018639	4.2757	0.0171	-	-
ENSOARG00000010033	2.7004	0.0171	-	-
ENSOARG00000007687	0.9678	0.0174	-	-
ENSOARG00000004957	-1.0069	0.0174	-	-
ENSOARG00000020750	5.2253	0.0174	-	-
ENSOARG00000019245	4.1822	0.0219	-	-
ENSOARG00000020659	3.9917	0.0223	-	-
ENSOARG00000010881	1.2678	0.0223	-	-
ENSOARG00000008601	3.8898	0.0223	-	-
ENSOARG00000007603	1.1393	0.0233	-	-
ENSOARG00000000476	2.7214	0.0237	-	-
ENSOARG00000013410	1.0062	0.0242	-	-
ENSOARG00000018988	-1.3859	0.0246	-	-

ENSOARG00000011463	1.2280	0.0246	-	-
ENSOARG00000020169	3.0623	0.0248	-	-
ENSOARG00000014957	-0.9899	0.0263	-	-
ENSOARG00000021045	-0.8164	0.0263	-	-
novel.2593	5.4683	0.0263	-	PF05392:Cytochrome C oxidase chain VIIB
ENSOARG00000008405	2.6753	0.0267	-	-
novel.921	2.4928	0.0267	-	PF17655:Inward rectifier potassium channel C-terminal domain PF01007:Inward rectifier potassium channel transmembrane domain
ENSOARG00000014009	2.5672	0.0267	-	-
ENSOARG00000012132	-0.8657	0.0267	-	-
ENSOARG00000019413	-2.5823	0.0267	-	-
ENSOARG00000020968	1.3899	0.0267	-	-
ENSOARG00000000248	-1.0913	0.0298	-	-
ENSOARG00000013165	0.9830	0.0298	-	-
ENSOARG00000010042	1.1039	0.0298	-	-
ENSOARG00000013116	3.7475	0.0298	-	-
ENSOARG00000000707	2.1322	0.0319	-	-
ENSOARG00000008288	1.4495	0.0332	-	-
ENSOARG00000006792	2.2211	0.0342	-	-
ENSOARG00000009791	1.8553	0.0354	-	-
ENSOARG00000002926	2.3034	0.0354	-	-
ENSOARG00000013238	-1.6073	0.0354	-	-
ENSOARG00000014436	5.3130	0.0355	-	-
ENSOARG00000012656	4.1326	0.0355	-	-
ENSOARG00000000984	-1.7115	0.0355	-	-
ENSOARG00000004882	4.3746	0.0355	-	-
ENSOARG00000004677	1.5201	0.0355	-	-

ENSOARG00000008094	1.5524	0.0358	-	-
ENSOARG00000020020	2.1999	0.0358	-	-
ENSOARG00000004374	2.4862	0.0372	-	-
ENSOARG00000011689	1.1262	0.0408	-	-
ENSOARG00000014005	0.9431	0.0408	-	-
ENSOARG00000016543	1.9284	0.0408	-	-
ENSOARG00000004803	1.1553	0.0409	-	-
ENSOARG00000018755	4.6695	0.0409	-	-
ENSOARG00000000338	1.1327	0.0409	-	-
ENSOARG00000015145	3.1336	0.0409	-	-
ENSOARG00000005423	-1.4948	0.0452	-	-
ENSOARG00000018990	2.4492	0.0452	-	-
novel.2086	-1.5282	0.0452	-	-
novel.1863	-4.1007	0.0468	-	PF03982:Diacylglycerol acyltransferase
novel.3309	-1.3074	0.0468	-	-
ENSOARG00000001878	1.7297	0.0468	-	-
ENSOARG00000018220	-0.9961	0.0468	-	-
ENSOARG00000008731	3.4399	0.0497	-	-
novel.588	-1.1370	0.0509	-	-
ENSOARG00000006106	1.4256	0.0514	-	-
ENSOARG00000000535	-0.8408	0.0530	-	-
ENSOARG00000011052	3.8337	0.0536	-	-
ENSOARG00000013734	2.6238	0.0540	-	-
ENSOARG00000002586	1.4275	0.0541	-	-
ENSOARG00000008554	-1.1128	0.0555	-	-
ENSOARG00000010213	1.9299	0.0555	-	-
ENSOARG00000000175	1.8322	0.0563	-	-
ENSOARG00000016717	3.0029	0.0565	-	-

ENSOARG00000020646	0.7077	0.0565	-	-
novel.181	1.0157	0.0600	-	-
ENSOARG00000009764	1.1731	0.0601	-	-
ENSOARG00000016144	-1.6567	0.0603	-	-
ENSOARG00000003713	3.0308	0.0603	-	-
ENSOARG00000002315	-1.6499	0.0636	-	-
ENSOARG00000000443	0.9873	0.0639	-	-
ENSOARG00000006374	1.7737	0.0641	-	-
novel.1808	-2.4782	0.0653	-	-
ENSOARG00000003388	3.7892	0.0663	-	-
ENSOARG00000013964	3.4507	0.0672	-	-
ENSOARG00000016371	3.3133	0.0672	-	-
novel.2581	0.5989	0.0672	-	-
novel.1972	1.4814	0.0673	-	-
ENSOARG00000006135	1.2852	0.0681	-	-
ENSOARG00000008659	1.9139	0.0698	-	-
ENSOARG00000003306	3.7451	0.0698	-	-
ENSOARG00000004817	3.7911	0.0698	-	-
ENSOARG00000019093	0.8605	0.0698	-	-
novel.357	2.4034	0.0699	-	-
ENSOARG00000015112	4.1434	0.0702	-	-
ENSOARG00000002486	1.3279	0.0702	-	-
novel.1866	2.3375	0.0707	-	PF00029:Connexin
ENSOARG00000000422	1.1105	0.0709	-	-
ENSOARG00000010693	-0.5902	0.0777	-	-
novel.1669	-0.9875	0.0804	-	PF17906:HTH domain in Mos1 transposase
ENSOARG00000001848	1.5729	0.0807	-	-
ENSOARG00000012744	3.1203	0.0807	-	-

novel.1250	-2.1625	0.0808	-	-
ENSOARG00000014151	1.2918	0.0808	-	-
novel.550	1.3609	0.0808	-	-
ENSOARG00000004455	-5.6251	0.0808	-	-
ENSOARG00000019002	0.9227	0.0808	-	-
ENSOARG00000008339	1.0123	0.0814	-	-
ENSOARG00000020455	-1.3519	0.0814	-	-
ENSOARG00000008245	2.7422	0.0824	-	-
ENSOARG00000019316	3.5497	0.0824	-	-
ENSOARG00000003044	3.9219	0.0825	-	-
ENSOARG00000015297	0.9019	0.0830	-	-
ENSOARG00000005336	0.5992	0.0876	-	-
ENSOARG00000007515	5.0961	0.0876	-	-
ENSOARG00000005754	0.6928	0.0883	-	-
novel.493	0.8914	0.0910	-	-
ENSOARG00000008997	3.0047	0.0931	-	-
ENSOARG00000015172	1.3320	0.0937	-	-
ENSOARG00000008084	1.0075	0.0954	-	-
ENSOARG00000006966	4.1243	0.0988	-	-
ENSOARG00000002445	2.1949	0.0990	-	-
ENSOARG00000005466	2.5020	0.0994	-	-
ENSOARG00000013669	2.2933	0.0996	-	-
novel.1244	-1.2086	0.0996	-	-

Table 13. All GO Enrichment Bovine Select to Standard muscle tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
BP	GO:0001568	blood vessel development	64 925	489 13406	0.0020	64	18	46
BP	GO:0001667	ameboidal-type cell migration	42 925	292 13406	0.0082	42	13	29
BP	GO:0048514	blood vessel morphogenesis	54 925	423 13406	0.0082	54	12	42
BP	GO:0010631	epithelial cell migration	33 925	212 13406	0.0082	33	9	24
BP	GO:0090132	epithelium migration	33 925	213 13406	0.0082	33	9	24
BP	GO:0090130	tissue migration	33 925	218 13406	0.0105	33	9	24
BP	GO:0043542	endothelial cell migration	26 925	154 13406	0.0105	26	6	20
BP	GO:0070848	response to growth factor	53 925	427 13406	0.0105	53	25	28
BP	GO:0071363	cellular response to growth factor stimulus	52 925	417 13406	0.0105	52	24	28
BP	GO:0001525	angiogenesis	45 925	345 13406	0.0111	45	9	36
BP	GO:0060425	lung morphogenesis	12 925	44 13406	0.0113	12	8	4
BP	GO:0021700	developmental maturation	29 925	189 13406	0.0140	29	16	13
BP	GO:0061061	muscle structure development	52 925	431 13406	0.0178	52	31	21
BP	GO:0060541	respiratory system development	24 925	147 13406	0.0201	24	17	7
BP	GO:0051272	positive regulation of cellular component movement	46 925	371 13406	0.0208	46	14	32
BP	GO:0000380	alternative mRNA splicing, via spliceosome	14 925	63 13406	0.0208	14	1	13
BP	GO:0010594	regulation of endothelial cell migration	20 925	117 13406	0.0328	20	4	16
BP	GO:0060070	canonical Wnt signaling pathway	31 925	223 13406	0.0328	31	17	14
BP	GO:0016055	Wnt signaling pathway	39 925	306 13406	0.0328	39	23	16
BP	GO:0198738	cell-cell signaling by wnt	39 925	308 13406	0.0337	39	23	16
BP	GO:0030324	lung development	21 925	128 13406	0.0337	21	15	6
BP	GO:0043484	regulation of RNA splicing	19 925	110 13406	0.0337	19	1	18
BP	GO:0030335	positive regulation of cell migration	43 925	354 13406	0.0340	43	12	31
BP	GO:2000147	positive regulation of cell motility	44 925	365 13406	0.0340	44	13	31
BP	GO:0040017	positive regulation of locomotion	46 925	387 13406	0.0340	46	14	32

BP	GO:0030323	respiratory tube development	21 925	130 13406	0.0340	21	15	6
BP	GO:2000027	regulation of organ morphogenesis	21 925	130 13406	0.0340	21	12	9
BP	GO:0007517	muscle organ development	33 925	249 13406	0.0340	33	18	15
BP	GO:0003279	cardiac septum development	16 925	86 13406	0.0340	16	11	5
BP	GO:0000381	regulation of alternative mRNA splicing, via spliceosome	12 925	54 13406	0.0356	12	1	11
BP	GO:0010632	regulation of epithelial cell migration	24 925	161 13406	0.0383	24	6	18
BP	GO:1905114	cell surface receptor signaling pathway involved in cell-cell signaling	43 925	363 13406	0.0463	43	26	17
BP	GO:0003281	ventricular septum development	12 925	56 13406	0.0463	12	9	3

Table 14. All GO Enrichment Bovine Select to Standard adipose tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
BP	GO:0003009	skeletal muscle contraction	17 1443	26 14063	5.77E-08	17	3	14
BP	GO:0003012	muscle system process	60 1443	238 14063	5.77E-08	60	17	43
BP	GO:0051186	cofactor metabolic process	81 1443	373 14063	5.77E-08	81	64	17
BP	GO:0006732	coenzyme metabolic process	56 1443	244 14063	5.96E-06	56	45	11
BP	GO:0090257	regulation of muscle system process	36 1443	126 14063	6.93E-06	36	11	25
BP	GO:0006936	muscle contraction	46 1443	187 14063	9.72E-06	46	14	32
BP	GO:0006753	nucleoside phosphate metabolic process	79 1443	411 14063	1.42E-05	79	51	28
BP	GO:0009117	nucleotide metabolic process	78 1443	404 14063	1.42E-05	78	50	28
BP	GO:0050879	multicellular organismal movement	17 1443	38 14063	2.4E-05	17	3	14
BP	GO:0050881	musculoskeletal movement	17 1443	38 14063	2.4E-05	17	3	14
BP	GO:0006091	generation of precursor metabolites and energy	63 1443	312 14063	4.37E-05	63	42	21
BP	GO:0032787	monocarboxylic acid metabolic process	73 1443	388 14063	0.0001	73	49	24
BP	GO:0044283	small molecule biosynthetic process	86 1443	483 14063	0.0001	86	58	28
BP	GO:0017144	drug metabolic process	88 1443	499 14063	0.0001	88	58	30
BP	GO:0006941	striated muscle contraction	29 1443	105 14063	0.0001	29	8	21
BP	GO:0072524	pyridine-containing compound metabolic process	29 1443	105 14063	0.0001	29	21	8
BP	GO:0044057	regulation of system process	55 1443	271 14063	0.0002	55	23	32
BP	GO:0006937	regulation of muscle contraction	26 1443	90 14063	0.0002	26	9	17
BP	GO:0006575	cellular modified amino acid metabolic process	30 1443	113 14063	0.0002	30	21	9
BP	GO:0055086	nucleobase-containing small molecule metabolic process	83 1443	477 14063	0.0002	83	54	29
BP	GO:0006790	sulfur compound metabolic process	43 1443	197 14063	0.0003	43	37	6
BP	GO:1901615	organic hydroxy compound metabolic process	58 1443	299 14063	0.0003	58	44	14
BP	GO:0051188	cofactor biosynthetic process	42 1443	194 14063	0.0004	42	29	13

BP	GO:0019693	ribose phosphate metabolic process	61 1443	325 14063	0.0004	61	35	26
BP	GO:0016126	sterol biosynthetic process	15 1443	38 14063	0.0004	15	15	0
BP	GO:0019362	pyridine nucleotide metabolic process	27 1443	101 14063	0.0004	27	19	8
BP	GO:0046496	nicotinamide nucleotide metabolic process	27 1443	101 14063	0.0004	27	19	8
BP	GO:0090075	relaxation of muscle	10 1443	18 14063	0.0004	10	1	9
BP	GO:0044282	small molecule catabolic process energy derivation by oxidation of organic compounds	50 1443	251 14063	0.0005	50	38	12
BP	GO:0015980	organic acid catabolic process	42 1443	197 14063	0.0005	42	27	15
BP	GO:0016054	carboxylic acid catabolic process	39 1443	178 14063	0.0005	39	31	8
BP	GO:0046395	myotube cell development	39 1443	178 14063	0.0005	39	31	8
BP	GO:0014904	oxidoreduction coenzyme metabolic process	14 1443	35 14063	0.0006	14	3	11
BP	GO:0006733	dicarboxylic acid metabolic process	29 1443	116 14063	0.0006	29	20	9
BP	GO:0043648	alpha-amino acid metabolic process	20 1443	65 14063	0.0006	20	18	2
BP	GO:1901605	integral component of mitochondrial inner membrane	36 1443	162 14063	0.0008	36	26	10
CC	GO:0031305	intrinsic component of mitochondrial inner membrane	14 1473	34 14477	0.0010	14	13	1
CC	GO:0031304	lipid biosynthetic process	14 1473	35 14477	0.0010	14	13	1
BP	GO:0008610	skeletal muscle organ development	69 1443	398 14063	0.0011	69	54	15
BP	GO:0060538	cofactor binding	32 1443	139 14063	0.0011	32	12	20
MF	GO:0048037	steroid metabolic process	77 1467	432 14150	0.0012	77	66	11
BP	GO:0008202	purine nucleotide metabolic process nucleoside monophosphate metabolic process	37 1443	173 14063	0.0014	37	28	9
BP	GO:0006163	antibiotic metabolic process	56 1443	309 14063	0.0019	56	31	25
BP	GO:0009123	striated muscle cell development	47 1443	245 14063	0.0020	47	26	21
BP	GO:0016999	muscle tissue development	25 1443	100 14063	0.0022	25	20	5
BP	GO:0055002	striated muscle tissue development	28 1443	119 14063	0.0023	28	7	21
BP	GO:0060537	striated muscle tissue development	54 1443	298 14063	0.0025	54	17	37
BP	GO:0014706	striated muscle tissue development	52 1443	284 14063	0.0026	52	17	35

BP	GO:0007519	skeletal muscle tissue development	30 1443	133 14063	0.0026	30	11	19
BP	GO:0016053	organic acid biosynthetic process	49 1443	263 14063	0.0026	49	30	19
BP	GO:0016125	sterol metabolic process	21 1443	78 14063	0.0026	21	20	1
BP	GO:0006520	cellular amino acid metabolic process	44 1443	228 14063	0.0027	44	33	11
BP	GO:0006637	acyl-CoA metabolic process	18 1443	62 14063	0.0031	18	17	1
BP	GO:0035383	thioester metabolic process	18 1443	62 14063	0.0031	18	17	1
BP	GO:0009108	coenzyme biosynthetic process	33 1443	155 14063	0.0033	33	23	10
BP	GO:0051146	striated muscle cell differentiation	40 1443	203 14063	0.0034	40	13	27
BP	GO:0048741	skeletal muscle fiber development	12 1443	32 14063	0.0036	12	3	9
BP	GO:0072350	tricarboxylic acid metabolic process	12 1443	32 14063	0.0036	12	11	1
BP	GO:1902653	secondary alcohol biosynthetic process	12 1443	32 14063	0.0036	12	12	0
BP	GO:0046394	carboxylic acid biosynthetic process	48 1443	262 14063	0.0040	48	29	19
BP	GO:0090407	organophosphate biosynthetic process	67 1443	404 14063	0.0040	67	44	23
BP	GO:0007517	muscle organ development	47 1443	255 14063	0.0040	47	17	30
BP	GO:0061061	muscle structure development	72 1443	443 14063	0.0041	72	27	45
BP	GO:0019682	glyceraldehyde-3-phosphate metabolic process	7 1443	12 14063	0.0047	7	7	0
BP	GO:0006631	fatty acid metabolic process	47 1443	259 14063	0.0057	47	34	13
BP	GO:0055001	muscle cell development	28 1443	128 14063	0.0064	28	7	21
BP	GO:1901617	organic hydroxy compound biosynthetic process	31 1443	148 14063	0.0064	31	25	6
BP	GO:0009150	purine ribonucleotide metabolic process	52 1443	298 14063	0.0067	52	28	24
BP	GO:0006739	NADP metabolic process	10 1443	25 14063	0.0071	10	10	0
BP	GO:0009063	cellular amino acid catabolic process	20 1443	79 14063	0.0074	20	15	5
BP	GO:0072330	monocarboxylic acid biosynthetic process	35 1443	177 14063	0.0074	35	21	14
BP	GO:0009126	purine nucleoside monophosphate metabolic process	40 1443	213 14063	0.0080	40	21	19
CC	GO:0032592	integral component of mitochondrial membrane	17 1473	58 14477	0.0080	17	15	2
BP	GO:0006081	cellular aldehyde metabolic process	15 1443	51 14063	0.0085	15	14	1

BP	GO:0006090	pyruvate metabolic process	20 1443	80 14063	0.0085	20	11	9
BP	GO:0009161	ribonucleoside monophosphate metabolic process	41 1443	222 14063	0.0093	41	22	19
CC	GO:0098573	intrinsic component of mitochondrial membrane	17 1473	60 14477	0.0097	17	15	2
BP	GO:0006165	nucleoside diphosphate phosphorylation	19 1443	75 14063	0.0100	19	10	9
BP	GO:0006695	cholesterol biosynthetic process	11 1443	31 14063	0.0100	11	11	0
BP	GO:1901293	nucleoside phosphate biosynthetic process	44 1443	245 14063	0.0100	44	27	17
BP	GO:0009259	ribonucleotide metabolic process	53 1443	312 14063	0.0100	53	28	25
BP	GO:0006098	pentose-phosphate shunt	6 1443	10 14063	0.0106	6	6	0
BP	GO:0014902	myotube differentiation	21 1443	88 14063	0.0108	21	8	13
BP	GO:0046939	nucleotide phosphorylation	19 1443	76 14063	0.0112	19	10	9
CC	GO:0016528	sarcoplasm	13 1473	40 14477	0.0119	13	1	12
CC	GO:0030016	myofibril	29 1473	140 14477	0.0119	29	1	28
CC	GO:0031674	I band	21 1473	88 14477	0.0119	21	1	20
CC	GO:0044449	contractile fiber part	28 1473	134 14477	0.0119	28	1	27
BP	GO:0009141	nucleoside triphosphate metabolic process	42 1443	233 14063	0.0121	42	26	16
BP	GO:0051156	glucose 6-phosphate metabolic process	8 1443	18 14063	0.0123	8	8	0
BP	GO:0009165	nucleotide biosynthetic process	43 1443	241 14063	0.0125	43	26	17
BP	GO:0006749	glutathione metabolic process	11 1443	32 14063	0.0125	11	10	1
BP	GO:0009167	purine ribonucleoside monophosphate metabolic process	39 1443	212 14063	0.0125	39	21	18
BP	GO:0046034	ATP metabolic process	35 1443	184 14063	0.0131	35	19	16
BP	GO:0062012	regulation of small molecule metabolic process	40 1443	220 14063	0.0131	40	23	17
BP	GO:0009132	nucleoside diphosphate metabolic process	21 1443	90 14063	0.0135	21	11	10
BP	GO:0006939	smooth muscle contraction	16 1443	60 14063	0.0144	16	7	9
BP	GO:0009144	purine nucleoside triphosphate metabolic process	39 1443	214 14063	0.0144	39	23	16
BP	GO:0072521	purine-containing compound metabolic process	56 1443	342 14063	0.0149	56	31	25

CC	GO:0030018	Z disc	19 1473	78 14477	0.0151	19	1	18
CC	GO:0031301	integral component of organelle membrane	30 1473	152 14477	0.0158	30	23	7
CC	GO:0030017	sarcomere	26 1473	125 14477	0.0158	26	1	25
CC	GO:0005811	lipid droplet	15 1473	56 14477	0.0159	15	15	0
CC	GO:0031300	intrinsic component of organelle membrane	31 1473	161 14477	0.0159	31	24	7
BP	GO:0009205	metabolic process	38 1443	208 14063	0.0159	38	22	16
BP	GO:0032922	circadian regulation of gene expression	13 1443	44 14063	0.0172	13	2	11
BP	GO:0045333	cellular respiration	27 1443	132 14063	0.0183	27	22	5
BP	GO:0042692	muscle cell differentiation	44 1443	255 14063	0.0200	44	14	30
BP	GO:0006101	citrate metabolic process	10 1443	29 14063	0.0205	10	10	0
CC	GO:0043292	contractile fiber	29 1473	150 14477	0.0210	29	1	28
MF	GO:0050662	coenzyme binding	46 1467	247 14150	0.0215	46	40	6
MF	GO:0016645	oxidoreductase activity, acting on the CH-NH group of donors	10 1467	24 14150	0.0215	10	9	1
MF	GO:0016616	oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor	24 1467	103 14150	0.0228	24	20	4
MF	GO:0016614	oxidoreductase activity, acting on CH-OH group of donors	25 1467	111 14150	0.0228	25	21	4
MF	GO:0051117	ATPase binding	16 1467	57 14150	0.0228	16	7	9
MF	GO:0050661	NADP binding	12 1467	36 14150	0.0228	12	11	1
BP	GO:1901606	alpha-amino acid catabolic process	17 1443	69 14063	0.0237	17	12	5
BP	GO:0009199	ribonucleoside triphosphate metabolic process	38 1443	214 14063	0.0264	38	22	16
BP	GO:0005975	carbohydrate metabolic process	64 1443	414 14063	0.0264	64	39	25
BP	GO:0015672	monovalent inorganic cation transport	60 1443	383 14063	0.0274	60	31	29
BP	GO:0046165	alcohol biosynthetic process	20 1443	90 14063	0.0321	20	20	0
MF	GO:0016830	carbon-carbon lyase activity	13 1467	43 14150	0.0321	13	10	3
MF	GO:0016860	intramolecular oxidoreductase activity	11 1467	33 14150	0.0321	11	9	2

MF	GO:0008307	structural constituent of muscle	8 1467	19 14150	0.0321	8	2	6
BP	GO:1903522	regulation of blood circulation	28 1443	145 14063	0.0350	28	15	13
BP	GO:0006639	acylglycerol metabolic process	18 1443	78 14063	0.0359	18	16	2
CC	GO:0031966	mitochondrial membrane	73 1473	500 14477	0.0367	73	60	13
BP	GO:1902652	secondary alcohol metabolic process	17 1443	72 14063	0.0374	17	16	1
BP	GO:0003015	heart process	29 1443	153 14063	0.0375	29	15	14
BP	GO:0006694	steroid biosynthetic process	21 1443	98 14063	0.0375	21	19	2
BP	GO:0072329	monocarboxylic acid catabolic process	19 1443	85 14063	0.0375	19	16	3
BP	GO:0006164	purine nucleotide biosynthetic process	33 1443	182 14063	0.0375	33	18	15
BP	GO:0006942	regulation of striated muscle contraction	14 1443	54 14063	0.0379	14	6	8
BP	GO:0006638	neutral lipid metabolic process	18 1443	79 14063	0.0394	18	16	2
BP	GO:0008016	regulation of heart contraction	24 1443	119 14063	0.0397	24	14	10
BP	GO:0006066	alcohol metabolic process	34 1443	191 14063	0.0426	34	31	3
BP	GO:0015711	organic anion transport	50 1443	313 14063	0.0437	50	30	20
BP	GO:0048643	positive regulation of skeletal muscle tissue development	8 1443	22 14063	0.0437	8	4	4
BP	GO:0006084	acetyl-CoA metabolic process	9 1443	27 14063	0.0437	9	9	0
BP	GO:0097755	positive regulation of blood vessel diameter	9 1443	27 14063	0.0437	9	3	6
MF	GO:0031406	carboxylic acid binding	26 1467	127 14150	0.0437	26	21	5
BP	GO:0006140	regulation of nucleotide metabolic process	17 1443	74 14063	0.0461	17	8	9
BP	GO:0009066	aspartate family amino acid metabolic process	11 1443	38 14063	0.0465	11	7	4
CC	GO:0032839	dendrite cytoplasm	7 1473	18 14477	0.0466	7	2	5
CC	GO:0030425	dendrite	45 1473	282 14477	0.0468	45	22	23
CC	GO:0097447	dendritic tree	45 1473	282 14477	0.0468	45	22	23
CC	GO:0016529	sarcoplasmic reticulum	10 1473	34 14477	0.0468	10	1	9
BP	GO:0008203	cholesterol metabolic process	16 1443	68 14063	0.0478	16	15	1
BP	GO:0046390	ribose phosphate biosynthetic process	34 1443	193 14063	0.0478	34	18	16
BP	GO:0048747	muscle fiber development	15 1443	62 14063	0.0487	15	4	11

BP	GO:0005977	glycogen metabolic process	14 1443	56 14063	0.0487	14	4	10
BP	GO:0006073	cellular glucan metabolic process	14 1443	56 14063	0.0487	14	4	10
BP	GO:0044042	glucan metabolic process	14 1443	56 14063	0.0487	14	4	10
BP	GO:0070613	regulation of protein processing	13 1443	50 14063	0.0487	13	7	6
BP	GO:0006940	regulation of smooth muscle contraction	10 1443	33 14063	0.0492	10	4	6

Table 15. All GO Enrichment Bovine Choice to Standard adipose tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
CC	GO:0030016	myofibril	84 2877	140 14473	1.06E-22	84	8	76
CC	GO:0030017	sarcomere	77 2877	125 14473	5.04E-22	77	8	69
CC	GO:0044449	contractile fiber part	80 2877	134 14473	7.96E-22	80	8	72
CC	GO:0043292	contractile fiber	85 2877	150 14473	3.24E-21	85	8	77
CC	GO:0031674	I band	57 2877	88 14473	6.31E-18	57	6	51
CC	GO:0015629	actin cytoskeleton	151 2877	383 14473	3.88E-17	151	63	88
CC	GO:0030018	Z disc	51 2877	78 14473	2.27E-16	51	6	45
MF	GO:0003779	actin binding	129 2831	349 14150	7.88E-11	129	49	80
BP	GO:0030239	myofibril assembly	38 2841	57 14051	1.24E-10	38	4	34
BP	GO:0055002	striated muscle cell development	61 2841	120 14051	1.24E-10	61	10	51
BP	GO:0055001	muscle cell development	64 2841	129 14051	1.24E-10	64	10	54
BP	GO:0051146	striated muscle cell differentiation	84 2841	205 14051	8.84E-09	84	19	65
BP	GO:0003009	skeletal muscle contraction	21 2841	26 14051	4.88E-08	21	3	18
BP	GO:0010927	cellular component assembly involved in morphogenesis	44 2841	84 14051	4.88E-08	44	8	36
CC	GO:0005865	striated muscle thin filament	19 2877	24 14473	5.46E-08	19	1	18
BP	GO:0045214	sarcomere organization	26 2841	38 14051	1.24E-07	26	3	23
CC	GO:0036379	myofilament	19 2877	25 14473	1.64E-07	19	1	18
BP	GO:0003012	muscle system process	89 2841	239 14051	3.85E-07	89	20	69
BP	GO:0042692	muscle cell differentiation	94 2841	257 14051	3.85E-07	94	21	73
BP	GO:0061061	muscle structure development	143 2841	446 14051	7.57E-07	143	35	108
BP	GO:0006936	muscle contraction	73 2841	188 14051	1.32E-06	73	17	56
BP	GO:0048747	muscle fiber development	34 2841	63 14051	1.33E-06	34	6	28
CC	GO:0031966	mitochondrial membrane	150 2877	499 14473	1.48E-06	150	120	30
MF	GO:0051015	actin filament binding	67 2831	170 14150	1.92E-06	67	24	43
CC	GO:0042383	sarcolemma	37 2877	80 14473	5.1E-06	37	9	28

CC	GO:0031430	M band	13 2877	16 14473	1.23E-05	13	0	13
CC	GO:0031672	A band	16 2877	23 14473	1.68E-05	16	0	16
MF	GO:0008307	structural constituent of muscle	15 2831	19 14150	1.77E-05	15	2	13
BP	GO:0060537	muscle tissue development	100 2841	301 14051	2.51E-05	100	20	80
BP	GO:0014706	striated muscle tissue development	96 2841	287 14051	2.95E-05	96	19	77
CC	GO:0005743	mitochondrial inner membrane	110 2877	365 14473	0.0001	110	96	14
BP	GO:0043501	skeletal muscle adaptation	13 2841	16 14051	0.0001	13	1	12
CC	GO:0019866	organelle inner membrane	119 2877	405 14473	0.0001	119	99	20
BP	GO:0050879	multicellular organismal movement	22 2841	38 14051	0.0001	22	3	19
BP	GO:0050881	musculoskeletal movement	22 2841	38 14051	0.0001	22	3	19
MF	GO:0051371	muscle alpha-actinin binding	10 2831	11 14150	0.0002	10	1	9
BP	GO:0007517	muscle organ development	85 2841	258 14051	0.0003	85	17	68
BP	GO:0006753	nucleoside phosphate metabolic process	123 2841	412 14051	0.0004	123	92	31
BP	GO:0009117	nucleotide metabolic process	121 2841	405 14051	0.0005	121	90	31
BP	GO:0031032	actomyosin structure organization	57 2841	158 14051	0.0006	57	13	44
MF	GO:0005523	tropomyosin binding	11 2831	14 14150	0.0007	11	2	9
MF	GO:0051393	alpha-actinin binding	16 2831	26 14150	0.0007	16	5	11
CC	GO:0016529	sarcoplasmic reticulum	18 2877	34 14473	0.0007	18	2	16
CC	GO:0033017	sarcoplasmic reticulum membrane	12 2877	18 14473	0.0008	12	2	10
CC	GO:0005811	lipid droplet	25 2877	56 14473	0.0008	25	20	5
BP	GO:0034762	regulation of transmembrane transport	104 2841	342 14051	0.0009	104	40	64
BP	GO:0019693	ribose phosphate metabolic process	100 2841	326 14051	0.0009	100	71	29
BP	GO:0051186	cofactor metabolic process	112 2841	375 14051	0.0009	112	87	25
BP	GO:0030240	skeletal muscle thin filament assembly	10 2841	12 14051	0.0010	10	1	9
CC	GO:0016528	sarcoplasm	20 2877	41 14473	0.0010	20	3	17
CC	GO:0042641	actomyosin	24 2877	54 14473	0.0012	24	10	14
BP	GO:0016126	sterol biosynthetic process	20 2841	38 14051	0.0018	20	20	0
BP	GO:0007519	skeletal muscle tissue development	49 2841	135 14051	0.0019	49	11	38

CC	GO:0001725	stress fiber	21 2877	46 14473	0.0020	21	9	12
CC	GO:0097517	contractile actin filament bundle	21 2877	46 14473	0.0020	21	9	12
CC	GO:0005884	actin filament	33 2877	87 14473	0.0020	33	16	17
MF	GO:0042805	actinin binding	17 2831	31 14150	0.0026	17	5	12
BP	GO:0044283	small molecule biosynthetic process	137 2841	488 14051	0.0027	137	101	36
BP	GO:1901615	organic hydroxy compound metabolic process	92 2841	303 14051	0.0027	92	61	31
CC	GO:0031252	cell leading edge	75 2877	252 14473	0.0028	75	45	30
CC	GO:0030055	cell-substrate junction	46 2877	137 14473	0.0028	46	20	26
BP	GO:0060538	skeletal muscle organ development	50 2841	141 14051	0.0029	50	11	39
BP	GO:0014866	skeletal myofibril assembly	10 2841	13 14051	0.0029	10	1	9
BP	GO:0006163	purine nucleotide metabolic process	93 2841	310 14051	0.0037	93	64	29
CC	GO:0031968	organelle outer membrane	41 2877	120 14473	0.0041	41	22	19
CC	GO:0098589	membrane region	58 2877	187 14473	0.0044	58	27	31
CC	GO:0019867	outer membrane	41 2877	121 14473	0.0046	41	22	19
CC	GO:0005741	mitochondrial outer membrane	37 2877	106 14473	0.0046	37	19	18
CC	GO:0045121	membrane raft	56 2877	180 14473	0.0047	56	26	30
CC	GO:0005924	cell-substrate adherens junction	44 2877	133 14473	0.0047	44	20	24
BP	GO:0032787	monocarboxylic acid metabolic process	111 2841	386 14051	0.0048	111	75	36
MF	GO:0042277	peptide binding	58 2831	177 14150	0.0048	58	32	26
MF	GO:0033218	amide binding	64 2831	201 14150	0.0048	64	38	26
CC	GO:0098857	membrane microdomain	56 2877	181 14473	0.0051	56	26	30
BP	GO:0014823	response to activity	11 2841	16 14051	0.0052	11	3	8
BP	GO:0055003	cardiac myofibril assembly	13 2841	21 14051	0.0052	13	0	13
BP	GO:0070296	sarcoplasmic reticulum calcium ion transport	13 2841	21 14051	0.0052	13	2	11
CC	GO:0031305	integral component of mitochondrial inner membrane	16 2877	34 14473	0.0063	16	16	0
CC	GO:0043209	myelin sheath	47 2877	147 14473	0.0064	47	38	9

MF	GO:0048037	cofactor binding integral component of mitochondrial membrane	119 2831	431 14150	0.0069	119	90	29
CC	GO:0032592	cardiac cell development	23 2877	58 14473	0.0076	23	21	2
BP	GO:0055006	striated muscle adaptation	22 2841	48 14051	0.0077	22	2	20
BP	GO:0014888	ribose phosphate biosynthetic process	16 2841	30 14051	0.0079	16	2	14
BP	GO:0046390	skeletal muscle fiber development	62 2841	193 14051	0.0079	62	43	19
BP	GO:0048741	cellular modified amino acid metabolic process	17 2841	33 14051	0.0080	17	4	13
BP	GO:0006575	coenzyme metabolic process	41 2841	114 14051	0.0081	41	24	17
BP	GO:0006732	purine nucleotide biosynthetic process	75 2841	245 14051	0.0081	75	60	15
BP	GO:0006164	purine-containing compound biosynthetic process	59 2841	182 14051	0.0081	59	40	19
BP	GO:0072522	external side of plasma membrane	61 2841	190 14051	0.0082	61	42	19
CC	GO:0009897	mitochondrial membrane part	66 2877	226 14473	0.0082	66	44	22
CC	GO:0044455	intrinsic component of mitochondrial inner membrane	65 2877	222 14473	0.0082	65	58	7
CC	GO:0031304	nucleobase-containing small molecule metabolic process	16 2877	35 14473	0.0082	16	16	0
BP	GO:0055086	regulation of anatomical structure size	131 2841	478 14051	0.0086	131	99	32
BP	GO:0090066	purine ribonucleotide metabolic process	105 2841	369 14051	0.0088	105	57	48
BP	GO:0009150	regulation of skeletal muscle adaptation	88 2841	299 14051	0.0088	88	60	28
BP	GO:0014733	regulation of ion transmembrane transport	8 2841	10 14051	0.0088	8	0	8
BP	GO:0034765	lipid biosynthetic process	84 2841	283 14051	0.0088	84	30	54
BP	GO:0008610	cardiac muscle cell development	112 2841	399 14051	0.0088	112	85	27
BP	GO:0055013	focal adhesion	21 2841	46 14051	0.0088	21	2	19
CC	GO:0005925	actin filament bundle	42 2877	130 14473	0.0088	42	20	22
CC	GO:0032432	organophosphate biosynthetic process	21 2877	52 14473	0.0088	21	9	12
BP	GO:0090407	ribonucleotide metabolic process	113 2841	404 14051	0.0093	113	85	28
BP	GO:0009259	purine-containing compound metabolic process	91 2841	313 14051	0.0096	91	63	28
BP	GO:0072521		98 2841	342 14051	0.0096	98	68	30

BP	GO:0006941	striated muscle contraction	38 2841	105 14051	0.0096	38	7	31
BP	GO:0007015	actin filament organization	96 2841	334 14051	0.0097	96	50	46
BP	GO:0007005	mitochondrion organization	105 2841	372 14051	0.0100	105	81	24
BP	GO:0002082	regulation of oxidative phosphorylation intrinsic component of mitochondrial membrane	12 2841	20 14051	0.0100	12	10	2
CC	GO:0098573	coenzyme binding	23 2877	60 14473	0.0115	23	21	2
MF	GO:0050662	endosome membrane	73 2831	244 14150	0.0116	73	58	15
CC	GO:0010008	generation of precursor metabolites and energy	60 2877	205 14473	0.0120	60	43	17
BP	GO:0006091	secondary alcohol biosynthetic process	90 2841	312 14051	0.0130	90	66	24
BP	GO:1902653	myotube differentiation	16 2841	32 14051	0.0139	16	16	0
BP	GO:0014902	filopodium	33 2841	89 14051	0.0143	33	11	22
CC	GO:0030175	release of sequestered calcium ion into cytosol by sarcoplasmic reticulum	23 2877	61 14473	0.0143	23	12	11
BP	GO:0014808	regulation of muscle system process	11 2841	18 14051	0.0144	11	2	9
BP	GO:0090257	cardiac muscle tissue development	43 2841	126 14051	0.0144	43	11	32
BP	GO:0048738	regulation of muscle contraction	49 2841	149 14051	0.0147	49	8	41
BP	GO:0006937	alcohol biosynthetic process	33 2841	90 14051	0.0169	33	10	23
BP	GO:0046165	dystrophin-associated glycoprotein complex	33 2841	90 14051	0.0169	33	30	3
CC	GO:0016010	glycoprotein complex	8 2877	13 14473	0.0172	8	1	7
CC	GO:0090665	adherens junction	8 2877	13 14473	0.0172	8	1	7
CC	GO:0005912	myotube cell development	67 2877	238 14473	0.0176	67	30	37
BP	GO:0014904	response to muscle activity	17 2841	36 14051	0.0189	17	4	13
BP	GO:0014850	ureter development	8 2841	11 14051	0.0189	8	2	6
BP	GO:0072189	monovalent inorganic cation transport	8 2841	11 14051	0.0189	8	5	3
BP	GO:0015672	regulation of nucleotide metabolic process	106 2841	384 14051	0.0194	106	53	53
BP	GO:0006140	positive regulation of supramolecular fiber organization	28 2841	73 14051	0.0194	28	21	7
BP	GO:1902905		51 2841	159 14051	0.0194	51	33	18

CC	GO:0031256	leading edge membrane	30 2877	89 14473	0.0207	30	18	12
BP	GO:0055007	cardiac muscle cell differentiation	29 2841	77 14051	0.0213	29	4	25
BP	GO:1903578	regulation of ATP metabolic process	22 2841	53 14051	0.0225	22	17	5
BP	GO:0008154	actin polymerization or depolymerization	53 2841	168 14051	0.0225	53	35	18
BP	GO:0009152	purine ribonucleotide biosynthetic process	55 2841	176 14051	0.0225	55	37	18
BP	GO:1903514	release of sequestered calcium ion into cytosol by endoplasmic reticulum	11 2841	19 14051	0.0225	11	2	9
BP	GO:0009260	ribonucleotide biosynthetic process	58 2841	188 14051	0.0225	58	40	18
CC	GO:0070161	anchoring junction	68 2877	245 14473	0.0229	68	31	37
CC	GO:0030027	lamellipodium	39 2877	125 14473	0.0229	39	24	15
BP	GO:1901293	nucleoside phosphate biosynthetic process	72 2841	245 14051	0.0236	72	53	19
BP	GO:0009165	nucleotide biosynthetic process	71 2841	241 14051	0.0236	71	52	19
CC	GO:0045177	apical part of cell	61 2877	216 14473	0.0240	61	27	34
BP	GO:0051495	positive regulation of cytoskeleton organization	55 2841	177 14051	0.0248	55	36	19
BP	GO:0099132	ATP hydrolysis coupled cation transmembrane transport	23 2841	57 14051	0.0248	23	16	7
MF	GO:0001968	fibronectin binding	11 2831	19 14150	0.0250	11	7	4
BP	GO:0006695	cholesterol biosynthetic process	15 2841	31 14051	0.0251	15	15	0
BP	GO:1902903	regulation of supramolecular fiber organization	80 2841	279 14051	0.0251	80	48	32
BP	GO:0048739	cardiac muscle fiber development	9 2841	14 14051	0.0251	9	1	8
CC	GO:0030315	T-tubule	13 2877	29 14473	0.0257	13	0	13
BP	GO:0043269	regulation of ion transport	109 2841	402 14051	0.0270	109	49	60
BP	GO:0072330	monocarboxylic acid biosynthetic process	55 2841	178 14051	0.0271	55	39	16
CC	GO:0098552	side of membrane	94 2877	360 14473	0.0274	94	62	32
BP	GO:0009123	nucleoside monophosphate metabolic process	72 2841	247 14051	0.0275	72	54	18
BP	GO:0035051	cardiocyte differentiation	35 2841	101 14051	0.0284	35	7	28
BP	GO:0030042	actin filament depolymerization	18 2841	41 14051	0.0285	18	11	7

BP	GO:0009126	purine nucleoside monophosphate metabolic process	64 2841	215 14051	0.0289	64	46	18
BP	GO:0006631	fatty acid metabolic process	74 2841	256 14051	0.0289	74	51	23
BP	GO:0006119	oxidative phosphorylation	27 2841	72 14051	0.0289	27	25	2
BP	GO:0030335	positive regulation of cell migration	99 2841	361 14051	0.0290	99	46	53
CC	GO:0002102	podosome	10 2877	20 14473	0.0302	10	9	1
BP	GO:0046323	glucose import	20 2841	48 14051	0.0306	20	9	11
BP	GO:0097529	myeloid leukocyte migration	45 2841	140 14051	0.0306	45	27	18
BP	GO:0009161	ribonucleoside monophosphate metabolic process	66 2841	224 14051	0.0306	66	49	17
BP	GO:0022900	electron transport chain	39 2841	117 14051	0.0309	39	34	5
BP	GO:1901617	organic hydroxy compound biosynthetic process	48 2841	152 14051	0.0311	48	38	10
BP	GO:0055008	cardiac muscle tissue morphogenesis	22 2841	55 14051	0.0311	22	1	21
BP	GO:0051188	cofactor biosynthetic process	59 2841	196 14051	0.0312	59	46	13
BP	GO:0072524	pyridine-containing compound metabolic process	36 2841	106 14051	0.0320	36	30	6
BP	GO:0002026	regulation of the force of heart contraction	12 2841	23 14051	0.0329	12	4	8
BP	GO:0040017	positive regulation of locomotion	107 2841	398 14051	0.0347	107	50	57
BP	GO:0046034	ATP metabolic process	56 2841	185 14051	0.0351	56	41	15
CC	GO:0016459	myosin complex	19 2877	51 14473	0.0360	19	6	13
BP	GO:0009167	purine ribonucleoside monophosphate metabolic process	63 2841	214 14051	0.0378	63	46	17
BP	GO:0060415	muscle tissue morphogenesis	24 2841	63 14051	0.0387	24	3	21
BP	GO:0010880	regulation of release of sequestered calcium ion into cytosol by sarcoplasmic reticulum	9 2841	15 14051	0.0401	9	1	8
BP	GO:2001014	regulation of skeletal muscle cell differentiation	9 2841	15 14051	0.0401	9	2	7
BP	GO:0051261	protein depolymerization	30 2841	85 14051	0.0401	30	16	14
BP	GO:0062012	regulation of small molecule metabolic process	65 2841	223 14051	0.0401	65	45	20

BP	GO:0051493	regulation of cytoskeleton organization	112 2841	422 14051	0.0406	112	62	50
BP	GO:0110053	regulation of actin filament organization	61 2841	207 14051	0.0413	61	38	23
BP	GO:2000147	positive regulation of cell motility	101 2841	375 14051	0.0413	101	46	55
BP	GO:0015937	coenzyme A biosynthetic process	7 2841	10 14051	0.0414	7	7	0
BP	GO:0006066	alcohol metabolic process	57 2841	191 14051	0.0417	57	45	12
BP	GO:0008064	regulation of actin polymerization or depolymerization	46 2841	147 14051	0.0417	46	31	15
BP	GO:0030832	regulation of actin filament length	46 2841	147 14051	0.0417	46	31	15
CC	GO:0044440	endosomal part	62 2877	226 14473	0.0422	62	44	18
BP	GO:0046112	nucleobase biosynthetic process	10 2841	18 14051	0.0423	10	10	0
BP	GO:0051156	glucose 6-phosphate metabolic process	10 2841	18 14051	0.0423	10	10	0
BP	GO:1900542	regulation of purine nucleotide metabolic process	26 2841	71 14051	0.0423	26	19	7
BP	GO:0032535	regulation of cellular component size	81 2841	291 14051	0.0430	81	45	36
MF	GO:0016645	oxidoreductase activity, acting on the CH-NH group of donors	12 2831	23 14150	0.0445	12	10	2
BP	GO:0051272	positive regulation of cellular component movement	102 2841	381 14051	0.0450	102	47	55
CC	GO:0097228	sperm principal piece	8 2877	15 14473	0.0472	8	1	7
CC	GO:0043235	receptor complex	81 2877	310 14473	0.0475	81	37	44
BP	GO:0006733	oxidoreduction coenzyme metabolic process	38 2841	117 14051	0.0495	38	31	7

Table 16. All GO Enrichment Ovine Class 3 to Class 2 muscle tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
CC	GO:0005840	ribosome	78 529	205 2960	1.08E-10	78	68	10
MF	GO:0003735	structural constituent of ribosome	79 1389	207 7846	3.78E-10	79	68	11
MF	GO:0005198	structural molecule activity	91 1389	256 7846	4.27E-10	91	76	15
CC	GO:1990904	ribonucleoprotein complex	78 529	228 2960	2.71E-08	78	68	10
CC	GO:0043228	non-membrane-bounded organelle intracellular non-membrane-bounded	116 529	416 2960	8.74E-07	116	87	29
CC	GO:0043232	organelle	116 529	416 2960	8.74E-07	116	87	29
BP	GO:0043604	amide biosynthetic process	86 857	271 4836	1.58E-06	86	72	14
BP	GO:0043603	cellular amide metabolic process	87 857	278 4836	1.58E-06	87	73	14
BP	GO:0006412	translation	84 857	266 4836	1.58E-06	84	71	13
BP	GO:0043043	peptide biosynthetic process organonitrogen compound biosynthetic	84 857	268 4836	1.68E-06	84	71	13
BP	GO:1901566	process	115 857	405 4836	1.68E-06	115	83	32
BP	GO:0006518	peptide metabolic process	84 857	272 4836	2.51E-06	84	71	13
MF	GO:0005509	calcium ion binding	80 1389	253 7846	3.11E-06	80	60	20
BP	GO:0006754	ATP biosynthetic process	16 857	24 4836	5.84E-06	16	3	13
BP	GO:0009142	nucleoside triphosphate biosynthetic process purine nucleoside triphosphate biosynthetic	16 857	24 4836	5.84E-06	16	3	13
BP	GO:0009145	process	16 857	24 4836	5.84E-06	16	3	13
BP	GO:0009201	ribonucleoside triphosphate biosynthetic process	16 857	24 4836	5.84E-06	16	3	13
BP	GO:0009206	purine ribonucleoside triphosphate biosynthetic process	16 857	24 4836	5.84E-06	16	3	13
BP	GO:0046034	ATP metabolic process	19 857	33 4836	1.06E-05	19	3	16
BP	GO:0009144	purine nucleoside triphosphate metabolic process	19 857	34 4836	1.61E-05	19	3	16
BP	GO:0009199	ribonucleoside triphosphate metabolic process	19 857	34 4836	1.61E-05	19	3	16
BP	GO:0009205	purine ribonucleoside triphosphate metabolic process	19 857	34 4836	1.61E-05	19	3	16

CC	GO:0044444	cytoplasmic part	114 529	429 2960	1.71E-05	114	81	33
BP	GO:0005975	carbohydrate metabolic process	40 857	108 4836	3.02E-05	40	24	16
BP	GO:0009124	nucleoside monophosphate biosynthetic process	16 857	27 4836	3.12E-05	16	3	13
BP	GO:0009127	purine nucleoside monophosphate biosynthetic process	16 857	27 4836	3.12E-05	16	3	13
BP	GO:0009156	ribonucleoside monophosphate biosynthetic process	16 857	27 4836	3.12E-05	16	3	13
BP	GO:0009168	purine ribonucleoside monophosphate biosynthetic process	16 857	27 4836	3.12E-05	16	3	13
BP	GO:0009123	nucleoside monophosphate metabolic process	19 857	36 4836	3.12E-05	19	3	16
BP	GO:0009126	purine nucleoside monophosphate metabolic process	19 857	36 4836	3.12E-05	19	3	16
BP	GO:0009141	nucleoside triphosphate metabolic process	19 857	36 4836	3.12E-05	19	3	16
BP	GO:0009161	ribonucleoside monophosphate metabolic process	19 857	36 4836	3.12E-05	19	3	16
BP	GO:0009167	purine ribonucleoside monophosphate metabolic process	19 857	36 4836	3.12E-05	19	3	16
BP	GO:0017144	drug metabolic process	21 857	45 4836	0.0001	21	5	16
BP	GO:0009150	purine ribonucleotide metabolic process	21 857	52 4836	0.0015	21	3	18
BP	GO:0009259	ribonucleotide metabolic process	21 857	52 4836	0.0015	21	3	18
BP	GO:0015985	energy coupled proton transport, down electrochemical gradient	9 857	14 4836	0.0020	9	1	8
BP	GO:0015986	ATP synthesis coupled proton transport	9 857	14 4836	0.0020	9	1	8
BP	GO:0072330	monocarboxylic acid biosynthetic process	9 857	14 4836	0.0020	9	3	6
BP	GO:0019693	ribose phosphate metabolic process	21 857	54 4836	0.0025	21	3	18
BP	GO:0006163	purine nucleotide metabolic process	21 857	55 4836	0.0033	21	3	18
BP	GO:0098655	cation transmembrane transport	19 857	48 4836	0.0033	19	6	13
BP	GO:0098662	inorganic cation transmembrane transport	19 857	48 4836	0.0033	19	6	13
BP	GO:0009152	purine ribonucleotide biosynthetic process	17 857	41 4836	0.0033	17	3	14
BP	GO:0009260	ribonucleotide biosynthetic process	17 857	41 4836	0.0033	17	3	14

BP	GO:0046390	ribose phosphate biosynthetic process	17 857	41 4836	0.0033	17	3	14
BP	GO:0046434	organophosphate catabolic process	11 857	21 4836	0.0033	11	4	7
BP	GO:0072521	purine-containing compound metabolic process	21 857	56 4836	0.0033	21	3	18
BP	GO:0098660	inorganic ion transmembrane transport	19 857	49 4836	0.0033	19	6	13
BP	GO:0006090	pyruvate metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0006096	glycolytic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0006165	nucleoside diphosphate phosphorylation	7 857	10 4836	0.0033	7	2	5
BP	GO:0006757	ATP generation from ADP	7 857	10 4836	0.0033	7	2	5
BP	GO:0009132	nucleoside diphosphate metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0009135	purine nucleoside diphosphate metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0009179	purine ribonucleoside diphosphate metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0009185	ribonucleoside diphosphate metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0042866	pyruvate biosynthetic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0046031	ADP metabolic process	7 857	10 4836	0.0033	7	2	5
BP	GO:0046939	nucleotide phosphorylation	7 857	10 4836	0.0033	7	2	5
BP	GO:0009166	nucleotide catabolic process	8 857	13 4836	0.0043	8	3	5
BP	GO:0006164	purine nucleotide biosynthetic process	17 857	44 4836	0.0065	17	3	14
BP	GO:0016052	carbohydrate catabolic process	7 857	11 4836	0.0071	7	2	5
BP	GO:0034220	ion transmembrane transport	19 857	52 4836	0.0071	19	6	13
BP	GO:0019359	nicotinamide nucleotide biosynthetic process	8 857	14 4836	0.0076	8	2	6
BP	GO:0019363	pyridine nucleotide biosynthetic process	8 857	14 4836	0.0076	8	2	6
BP	GO:0072525	pyridine-containing compound biosynthetic process	8 857	14 4836	0.0076	8	2	6
BP	GO:0072522	purine-containing compound biosynthetic process	17 857	45 4836	0.0079	17	3	14
BP	GO:0006091	generation of precursor metabolites and energy	11 857	24 4836	0.0095	11	2	9

BP	GO:0016053	organic acid biosynthetic process	9 857	18 4836	0.0120	9	3	6
BP	GO:0046394	carboxylic acid biosynthetic process	9 857	18 4836	0.0120	9	3	6
BP	GO:1901292	nucleoside phosphate catabolic process	8 857	15 4836	0.0127	8	3	5
BP	GO:0019362	pyridine nucleotide metabolic process nucleobase-containing small molecule	8 857	16 4836	0.0202	8	2	6
BP	GO:0034404	biosynthetic process	8 857	16 4836	0.0202	8	3	5
BP	GO:0046496	nicotinamide nucleotide metabolic process pyridine-containing compound metabolic	8 857	16 4836	0.0202	8	2	6
BP	GO:0072524	process	8 857	16 4836	0.0202	8	2	6
BP	GO:1902600	proton transmembrane transport	13 857	34 4836	0.0231	13	2	11
BP	GO:0097435	supramolecular fiber organization	11 857	27 4836	0.0259	11	6	5
BP	GO:0009117	nucleotide metabolic process	26 857	89 4836	0.0300	26	5	21
BP	GO:0044283	small molecule biosynthetic process nucleobase-containing compound catabolic	14 857	39 4836	0.0307	14	7	7
BP	GO:0034655	process	10 857	24 4836	0.0307	10	5	5
BP	GO:1901135	carbohydrate derivative metabolic process	38 857	144 4836	0.0321	38	15	23
BP	GO:0032787	monocarboxylic acid metabolic process	9 857	21 4836	0.0368	9	3	6
BP	GO:0006753	nucleoside phosphate metabolic process	26 857	91 4836	0.0386	26	5	21
BP	GO:0006915	apoptotic process	19 857	61 4836	0.0399	19	17	2
BP	GO:0008219	cell death	19 857	61 4836	0.0399	19	17	2
BP	GO:0012501	programmed cell death	19 857	61 4836	0.0399	19	17	2
BP	GO:0006733	oxidoreduction coenzyme metabolic process nucleobase-containing small molecule	8 857	18 4836	0.0419	8	2	6
BP	GO:0055086	metabolic process	28 857	101 4836	0.0424	28	7	21
BP	GO:0051258	protein polymerization negative regulation of cytoskeleton	9 857	22 4836	0.0481	9	4	5
BP	GO:0051494	organization	7 857	15 4836	0.0482	7	2	5
BP	GO:0007015	actin filament organization	10 857	26 4836	0.0482	10	5	5
BP	GO:0051493	regulation of cytoskeleton organization	10 857	26 4836	0.0482	10	4	6
BP	GO:0030042	actin filament depolymerization	6 857	12 4836	0.0482	6	1	5

BP	GO:0030834	regulation of actin filament depolymerization	6 857	12 4836	0.0482	6	1	5
BP	GO:0030835	negative regulation of actin filament depolymerization	6 857	12 4836	0.0482	6	1	5
BP	GO:0030837	negative regulation of actin filament polymerization	6 857	12 4836	0.0482	6	1	5
BP	GO:0031333	negative regulation of protein complex assembly	6 857	12 4836	0.0482	6	1	5
BP	GO:0032272	negative regulation of protein polymerization	6 857	12 4836	0.0482	6	1	5
BP	GO:0043242	negative regulation of protein complex disassembly	6 857	12 4836	0.0482	6	1	5
BP	GO:0051261	protein depolymerization	6 857	12 4836	0.0482	6	1	5
BP	GO:0051693	actin filament capping	6 857	12 4836	0.0482	6	1	5
BP	GO:1901879	regulation of protein depolymerization negative regulation of protein	6 857	12 4836	0.0482	6	1	5
BP	GO:1901880	depolymerization	6 857	12 4836	0.0482	6	1	5

Table 17. All GO Enrichment Ovine Class 3 to Class 1 muscle tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
MF	GO:0005509	calcium ion binding	68 1036	246 7691	4.97E-07	68	52	16
BP	GO:0072330	monocarboxylic acid biosynthetic process generation of precursor metabolites and energy	9 617	14 4714	0.0018	9	3	6
BP	GO:0006091	pyruvate metabolic process	12 617	24 4714	0.0018	12	3	9
BP	GO:0006090	glycolytic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0006096	nucleoside diphosphate phosphorylation	7 617	10 4714	0.0018	7	2	5
BP	GO:0006165	ATP generation from ADP	7 617	10 4714	0.0018	7	2	5
BP	GO:0006757	nucleoside diphosphate metabolic process purine nucleoside diphosphate metabolic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0009132	purine ribonucleoside diphosphate metabolic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0009179	ribonucleoside diphosphate metabolic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0009185	pyruvate biosynthetic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0042866	ADP metabolic process	7 617	10 4714	0.0018	7	2	5
BP	GO:0046031	nucleotide phosphorylation	7 617	10 4714	0.0018	7	2	5
BP	GO:0046939	nucleotide catabolic process	8 617	13 4714	0.0018	8	3	5
BP	GO:0009166	nucleoside monophosphate metabolic process	14 617	36 4714	0.0021	14	4	10
BP	GO:0009123	purine nucleoside monophosphate metabolic process	14 617	36 4714	0.0021	14	4	10
BP	GO:0009126	ribonucleoside monophosphate metabolic process	14 617	36 4714	0.0021	14	4	10
BP	GO:0009161	purine ribonucleoside monophosphate metabolic process	14 617	36 4714	0.0021	14	4	10
BP	GO:0009167	nicotinamide nucleotide biosynthetic process	8 617	14 4714	0.0024	8	2	6
BP	GO:0019359	pyridine nucleotide biosynthetic process	8 617	14 4714	0.0024	8	2	6

BP	GO:0072525	pyridine-containing compound biosynthetic process	8 617	14 4714	0.0024	8	2	6
BP	GO:0046434	organophosphate catabolic process	10 617	21 4714	0.0024	10	4	6
BP	GO:0016052	carbohydrate catabolic process	7 617	11 4714	0.0024	7	2	5
BP	GO:0046034	ATP metabolic process	13 617	33 4714	0.0024	13	3	10
BP	GO:0016053	organic acid biosynthetic process	9 617	18 4714	0.0028	9	3	6
BP	GO:0046394	carboxylic acid biosynthetic process	9 617	18 4714	0.0028	9	3	6
BP	GO:0009144	purine nucleoside triphosphate metabolic process	13 617	34 4714	0.0029	13	3	10
BP	GO:0009199	ribonucleoside triphosphate metabolic process	13 617	34 4714	0.0029	13	3	10
BP	GO:0009205	purine ribonucleoside triphosphate metabolic process	13 617	34 4714	0.0029	13	3	10
BP	GO:1901292	nucleoside phosphate catabolic process	8 617	15 4714	0.0032	8	3	5
BP	GO:0009124	nucleoside monophosphate biosynthetic process	11 617	27 4714	0.0040	11	4	7
BP	GO:0009127	purine nucleoside monophosphate biosynthetic process	11 617	27 4714	0.0040	11	4	7
BP	GO:0009156	ribonucleoside monophosphate biosynthetic process	11 617	27 4714	0.0040	11	4	7
BP	GO:0009168	purine ribonucleoside monophosphate biosynthetic process	11 617	27 4714	0.0040	11	4	7
BP	GO:0009141	nucleoside triphosphate metabolic process	13 617	36 4714	0.0044	13	3	10
BP	GO:0019362	pyridine nucleotide metabolic process	8 617	16 4714	0.0044	8	2	6
BP	GO:0034404	nucleobase-containing small molecule biosynthetic process	8 617	16 4714	0.0044	8	3	5
BP	GO:0046496	nicotinamide nucleotide metabolic process	8 617	16 4714	0.0044	8	2	6
BP	GO:0072524	pyridine-containing compound metabolic process	8 617	16 4714	0.0044	8	2	6
BP	GO:0006754	ATP biosynthetic process	10 617	24 4714	0.0047	10	3	7
BP	GO:0009142	nucleoside triphosphate biosynthetic process	10 617	24 4714	0.0047	10	3	7
BP	GO:0009145	purine nucleoside triphosphate biosynthetic process	10 617	24 4714	0.0047	10	3	7

BP	GO:0009201	ribonucleoside triphosphate biosynthetic process	10 617	24 4714	0.0047	10	3	7
BP	GO:0009206	purine ribonucleoside triphosphate biosynthetic process	10 617	24 4714	0.0047	10	3	7
MF	GO:0004857	enzyme inhibitor activity	21 1036	63 7691	0.0057	21	12	9
BP	GO:0032787	monocarboxylic acid metabolic process	9 617	21 4714	0.0069	9	3	6
BP	GO:0006733	oxidoreduction coenzyme metabolic process	8 617	18 4714	0.0100	8	2	6
BP	GO:0017144	drug metabolic process	14 617	45 4714	0.0115	14	4	10
BP	GO:0044283	small molecule biosynthetic process	12 617	39 4714	0.0274	12	6	6
BP	GO:0006915	apoptotic process	16 617	61 4714	0.0349	16	15	1
BP	GO:0008219	cell death	16 617	61 4714	0.0349	16	15	1
BP	GO:0012501	programmed cell death	16 617	61 4714	0.0349	16	15	1
BP	GO:0009150	purine ribonucleotide metabolic process	14 617	51 4714	0.0372	14	4	10
BP	GO:0009259	ribonucleotide metabolic process	14 617	51 4714	0.0372	14	4	10
CC	GO:0019866	organelle inner membrane	12 372	33 2865	0.0415	12	2	10
CC	GO:0005746	mitochondrial respiratory chain	6 372	11 2865	0.0415	6	2	4
CC	GO:0070469	respiratory chain	6 372	11 2865	0.0415	6	2	4
CC	GO:0005743	mitochondrial inner membrane	11 372	32 2865	0.0415	11	2	9
BP	GO:0022900	electron transport chain	5 617	10 4714	0.0428	5	1	4
MF	GO:0098772	molecular function regulator	65 1036	325 7691	0.0474	65	48	17
BP	GO:0005975	carbohydrate metabolic process	24 617	109 4714	0.0488	24	14	10

Table 18. All GO Enrichment Ovine Class 3 to Class 1 adipose tissue

Category	GOID	Description	GeneRatio	BgRatio	padj	Count	Up	Down
BP	GO:0019882	antigen processing and presentation	10 341	22 5153	0.0001	10	7	3
BP	GO:0006955	immune response	21 341	96 5153	0.0001	21	16	5
BP	GO:0002376	immune system process	21 341	101 5153	0.0002	21	16	5
MF	GO:0008009	chemokine activity	9 563	25 8340	0.0025	9	8	1
MF	GO:0042379	chemokine receptor binding	9 563	25 8340	0.0025	9	8	1
MF	GO:0001664	G-protein coupled receptor binding	9 563	26 8340	0.0025	9	8	1
MF	GO:0005125	cytokine activity	11 563	42 8340	0.0048	11	10	1
CC	GO:0042611	MHC protein complex	6 249	14 3218	0.0069	6	6	0
CC	GO:0042613	MHC class II protein complex	6 249	14 3218	0.0069	6	6	0
CC	GO:0099080	supramolecular complex	6 249	14 3218	0.0069	6	5	1
CC	GO:0099081	supramolecular polymer	6 249	14 3218	0.0069	6	5	1
CC	GO:0099512	supramolecular fiber	6 249	14 3218	0.0069	6	5	1
CC	GO:0015629	actin cytoskeleton	12 249	54 3218	0.0103	12	12	0
CC	GO:0071944	cell periphery	15 249	80 3218	0.0131	15	13	2
CC	GO:0005886	plasma membrane	13 249	68 3218	0.0207	13	11	2
CC	GO:0044430	cytoskeletal part	15 249	86 3218	0.0210	15	13	2
CC	GO:0005856	cytoskeleton	17 249	104 3218	0.0210	17	14	3
CC	GO:0098797	plasma membrane protein complex	10 249	47 3218	0.0224	10	9	1
CC	GO:0005576	extracellular region	28 249	216 3218	0.0306	28	24	4
CC	GO:0044459	plasma membrane part	11 249	59 3218	0.0349	11	10	1
CC	GO:0016459	myosin complex	8 249	36 3218	0.0354	8	8	0