

**Supplement Table 1**

Two-fold differentially expressed genes between Day7E vs Day 14E.

Accession#	Gene name	D14E/D7E k-means	classification
Day 14E /Day 7E down-regulated genes (< 0.5)			
AW484050	EST	0.19	11
L07872	Homo sapiens Jk-recombination signal binding protein	0.19	8
NM_001294	Homo sapiens CLPTM1	0.23	4
NM_001021	Homo sapiens ribosomal protein S17 (RPS17)	0.25	8
M20866	Sus scrofa cofilin	0.25	1
BP110964	EST	0.26	1
BP110413	EST	0.28	8
M21683	Sus scrofa nonhistone protein HMG1	0.30	8
AF020508	Bos taurus PAG-6	0.36	11
BP106894	EST	0.36	8
BP110830	EST	0.38	8
BP107823	EST	0.38	8
AW354303	EST	0.39	8
AF020507	Bos taurus PAG-5	0.39	11
AW470389	EST	0.39	1
X91755	Bos taurus cathepsin L	0.42	8
BP110986	EST	0.43	4
NM_005722	Homo sapiens ARP2 actin-related protein 2 homolog (yeast)	0.43	8
AF210381	Bos taurus DDVit1	0.44	4
BP110238	EST	0.45	5
AF020506	Bos taurus PAG-4	0.46	1
BP110294	EST	0.47	8
AW426990	EST	0.47	8
U21660	Bos taurus phosphatidylcholine transfer protein	0.47	4
L02897	Dog nonerythroid beta-spectrin	0.47	9
AF166124	Homo sapiens selenoprotein X	0.49	8
Day 14E /Day 7E up-regulated genes (2 <)			
X98834	Homo sapiens zinc finger protein, Hsal2	2.00	12
AW462039	EST	2.00	8
BP112562	EST	2.00	1
BP111442	EST	2.00	3
AF063243	Bos taurus ribosomal protein L30	2.01	6
BP108322	EST	2.01	10
AF192333	Bos taurus PAG-16	2.01	11
AW463677	EST	2.01	6
BP108443	EST	2.01	8
M27239	Bos taurus PRP-II	2.02	11
M12252	Chinese hamster alpha-tubulin I	2.02	8
BP106914	EST	2.02	6
AF057300	Homo sapiens truncated RAD50 protein	2.02	3
AW482702	EST	2.02	7
AF109198	Bos taurus chloride channel protein p64H1	2.02	3
AI617792	EST	2.02	12
X69556	Bos taurus cpn 10	2.02	3
AI991258	EST	2.02	7
NM_001000	Homo sapiens ribosomal protein L39 (RPL39)	2.03	8
Z25466	Bos taurus mitochondrial aspartate aminotransferase	2.03	10
BP107851	EST	2.03	7
AF164023	Bos taurus kappa-casein (CSN3)	2.03	1
D14531	Homo sapiens homologue of rat ribosomal protein L9	2.03	6
U69698	Cryptosporidium parvum heat shock protein 70(Hsp 70)	2.03	2
AF161415	Homo sapiens HSPC297	2.03	4
NM_004738	Homo sapiens VAMP-associated protein B and C (VAPB)	2.03	2
J05058	Bos taurus cytochrome c oxidase subunit IHQ (VIIb)	2.03	3
X04849	Bos taurus clathrin light chain a (brain LCa)	2.04	6
AW483954	EST	2.04	3
BP112917	EST	2.05	8
M18344	Bos taurus vitamin D-dependent calcium binding protein	2.05	11
M11341	Bos taurus low density lipoprotein receptor	2.05	10
AI983274	EST	2.05	10
NM_002898	Homo sapiens single stranded interacting protein 2 (RBMS2)	2.05	5
AW417894	EST	2.06	7
AI796137	EST	2.06	7
AC004990	Homo sapiens PAC clone RP5-118517 from 7q11.23-q21	2.06	10
NM_012127	Homo sapiens Cip1-interacting zinc finger protein (CIZ1)	2.06	8
AW312756	EST	2.06	2
BP107831	EST	2.06	3
AW437633	EST	2.07	6
X63678	Canis familiaris TRAM-protein	2.07	3
BP112392	EST	2.07	10
NM_001259	Homo sapiens cyclin-dependent kinase 6 (CDK6)	2.07	9
BP109609	EST	2.07	9
X64126	Bos taurus DNA for SINE sequence Bov-1D	2.08	12
BP110908	EST	2.08	7
AI081391	EST	2.08	10
NM_000661	Homo sapiens ribosomal protein L9 (RPL9)	2.08	6
NM_003369	Homo sapiens UV radiation resistance associated gene	2.08	10
X73751	EST	2.08	7
AW480847	EST	2.09	10
AL036393	EST	2.09	3
Z85980	Bos taurus capping protein, beta3 isoform	2.10	8
AW437818	EST	2.10	10
U11927	Bos gaurus vacuolar H-ATPase subunit D (VATD)	2.10	10
AW464287	EST	2.10	8
AF033095	Homo sapiens testis enhanced gene transcript protein	2.10	12
BP107313	EST	2.10	3
AW344559	EST	2.10	4
L41543	Bos taurus epithelial mucin (MUC1)	2.11	11
X63436	Bos taurus poly(A) polymerase	2.11	9
AF068846	Homo sapiens scaffold attachment factor A (SAF-A)	2.12	6
AW479659	EST	2.12	6
BP112687	EST	2.12	7
AA112300	EST	2.12	10
AF044670	Homo sapiens 33 kDa Vamp-associated protein (VAP33)	2.12	10
X17019	Bos taurus mRNA for delta subunit of ATP synthase	2.12	8

L10240	Homo sapiens EMMPRIN	2.13	7	ECM & related
AW445987	EST	2.13	4	
BP109789	EST	2.13	10	
AW480521	EST	2.13	9	
BP112434	EST	2.14	8	
AL031667	Homo sapiens clone RP4-620E11	2.14	7	
AF103726	Gallus gallus peptide elongation factor 1-beta	2.14	10	Transcriptional regulator
BP112653	EST	2.14	7	
D49678	Bos taurus PAF acetylhydrolase beta-subunit	2.14	11	Enzyme
BP108071	EST	2.14	9	
AW430401	EST	2.15	7	
NM_011341	Mus musculus stromal cell derived factor 4 (Sdf4)	2.15	7	
BP107164	EST	2.15	1	
AF192334	Bos taurus PAG-17	2.15	11	Cytokine family
A1985504	EST	2.16	10	
AW359235	EST	2.16	7	
Z33879	Sus scrofa G-beta like protein	2.17	8	
A1814715	EST	2.18	2	
U17836	Bos taurus acidic ribosomal protein P2	2.18	2	Ribosomal
AW481254	EST	2.18	10	
AB032826	Bos taurus selenoprotein P	2.18	4	
AW480847	EST	2.19	7	
AW315026	EST	2.19	12	
NM_000985	Homo sapiens ribosomal protein L17 (RPL17)	2.19	6	Ribosomal
A1970619	EST	2.19	10	
AW465455	EST	2.19	9	
U37459	Mus musculus glia-derived neurotrophic growth factor	2.19	9	Cytokine family
AW260930	EST	2.20	4	
AW464570	EST	2.20	3	
AW335986	EST	2.20	6	
BP112334	EST	2.20	8	
AF144695	Mus musculus ERO1L (Ero11)	2.20	6	
U13369	Homo sapiens ribosomal DNA complete repeating unit	2.21	7	
AF161418	Homo sapiens HSPC300	2.21	6	
A1350705	EST	2.21	10	
BP108366	EST	2.21	12	
AW466029	EST	2.22	5	
AF000152	Homo sapiens OS-4 protein	2.22	2	
AW427810	EST	2.22	10	
AW298224	EST	2.22	6	
M19962	Bos taurus cytochrome c oxidase subunit Vb (coxVb)	2.22	9	Enzyme
AA933095	EST	2.22	10	
BP109858	EST	2.23	2	
NM_006283	Homo sapiens TACC1	2.23	5	
A1061614	EST	2.23	6	
AF002693	Homo sapiens ATQL1 pseudogene	2.24	2	
BP110513	EST	2.24	9	
AW486974	EST	2.25	10	
AC002550	Homo sapiens BAC clone CIT987SK-A-101F10	2.26	9	
NM_001023	Homo sapiens ribosomal protein S20 (RPS20)	2.26	8	Ribosomal
BP112699	EST	2.26	7	
D45887	Homo sapiens calmodulin	2.26	6	Oncogene & Tumor inhibitor
BP111373	EST	2.27	10	
H44982	EST	2.27	10	
BP111869	EST	2.27	6	
BP107816	EST	2.27	10	
BP109830	EST	2.27	12	
BP112736	EST	2.27	3	
AJ004935	Urechis caupo cytoplasmic intermediate filament protein	2.27	10	Cytoskelton
BP107808	EST	2.27	9	
U65789	Bos taurus intercellular adhesion molecule-1 (bovICAM-1)	2.27	8	Cell adhesion
Z29555	Bos taurus ribosomal protein L3	2.28	8	Ribosomal
D84557	Homo sapiens HsMcm6	2.28	12	
AW461475	EST	2.28	10	
AW477773	EST	2.28	10	
BP106875	EST	2.28	6	
AF132048	Homo sapiens foocen-s	2.29	6	
NM_007278	Homo sapiens GABA(A) receptor-associated protein	2.29	9	
M22559	Bos taurus ATP synthase inhibitor protein	2.30	6	
AF081484	Homo sapiens alpha-tubulin isoform 1	2.30	6	Cytoskelton
BP111623	EST	2.30	1	
AW403893	EST	2.31	10	
NM_001015	Homo sapiens ribosomal protein S11 (RPS11)	2.31	12	Ribosomal
AW316336	EST	2.31	4	
AW307877	EST	2.31	3	
NM_005600	Homo sapiens nitrilase 1 (NIT1)	2.31	7	Enzyme
NM_006156	Homo sapiens NEDD8	2.32	12	
NM_004596	Homo sapiens small nuclear ribonucleoprotein polypeptide A	2.32	12	Nuclear protein
AW487141	EST	2.32	8	
AB028449	Homo sapiens mRNA for helicase-MOI	2.32	9	DNA binding protain
M83656	Bos taurus cytoplasmic phosphotyrosyl protein phosphatase	2.33	9	Enzyme
S61826	Homo sapiens OXPHOS system complex III mitochondrial sub	2.34	12	Mitochondrial
Z18245	Bos taurus gpolyubiquitin	2.34	12	Heat shock protein
AW249038	EST	2.35	7	
NM_000291	Homo sapiens phosphoglycerate kinase 1 (PGK1)	2.35	10	Enzyme
BP112667	EST	2.35	10	
AW484653	EST	2.35	9	
BP109619	EST	2.35	4	
BP111617	EST	2.36	10	
AW492642	EST	2.36	10	
BP109456	EST	2.36	7	
AW356092	EST	2.36	12	
AF160877	Cercopithecus aethiops ERGIC-53	2.36	1	
AF070659	Homo sapiens HSPC003	2.37	12	
Y10811	Bos taurus precystatin C	2.37	9	Oncogene & Tumor inhibitor
AF013215	Bos taurus ribosomal protein S2	2.37	12	Ribosomal
X03266	Sus scrofa inhibin beta (a)-subunit	2.37	7	Cytokine family
BP107704	EST	2.37	4	
BP112838	EST	2.38	8	
AW463993	EST	2.38	11	

AW325420	EST	2.38	10	
X03205	Homo sapiens 18S ribosomal RNA	2.39	2	
AL096857	Homo sapiens chromosome 1 which has similarities to BAT2	2.40	10	
W54378	EST	2.40	9	
AJ243486	Cyprinus carpio uncoupling protein 2	2.40	2	
AW483823	EST	2.40	10	
BP111712	EST	2.40	8	
AF062342	Homo sapiens p120 catenin isoform 4ABC (CTNND1)	2.40	10	Oncogene & Tumor inhibitor
AB032251	Homo sapiens bromodomain PHD finger transcription factor	2.41	10	Transcriptional regulator
BP113033	EST	2.41	12	
AW461681	EST	2.41	10	
AC005037	Homo sapiens BAC clone RP11-469M7 from 2	2.41	2	
AF054185	Homo sapiens proteasome subunit HSPC	2.41	8	
AJ000186	Homo sapiens MAD2 protein	2.41	7	Cytokine family
BP111440	EST	2.41	9	
AF023860	Cercopithecus aethiops cyclophilin A	2.41	6	
X76980	Bos taurus epsilon-COP	2.42	8	
AW313925	EST	2.42	10	
AW345047	EST	2.43	9	
AW476334	EST	2.43	7	
BP112666	EST	2.43	3	
AA157075	EST	2.44	1	
AF078863	Homo sapiens PTD010	2.44	8	
BP108543	EST	2.44	10	
AW345779	EST	2.44	3	
U94889	Ovis aries glyceraldehyde-3-phosphate dehydrogenase	2.44	6	Enzyme
NM_007475	Mus musculus acidic ribosomal phosphoprotein PO (Arbp)	2.45	6	Ribosomal
AI500332	EST	2.45	10	
U49973	Homo sapiens Tigger1 transposable element	2.45	9	
AW485697	EST	2.46	3	
AL133034	Homo sapiens mRNA; cDNA DKFZp727K171	2.46	11	
BP109873	EST	2.46	7	
AW314606	EST	2.47	10	
AF153686	Homo sapiens calcium binding protein precursor	2.47	3	
D63486	Homo sapiens KIAA0152	2.48	7	
NM_005872	Homo sapiens breast carcinoma amplified sequence 2	2.48	2	Oncogene & Tumor inhibitor
G29060	EST	2.49	3	
J03604	Bos taurus glutamine synthetase	2.49	9	Enzyme
U22232	Felis domesticus ribosomal protein S4	2.49	6	Ribosomal
AW417998	EST	2.49	9	
AI922214	EST	2.49	10	
M60073	Bos taurus tissue inhibitor of metalloproteinase	2.50	3	ECM & related
AV405328	EST	2.50	10	
D13891	Homo sapiens Id-2H	2.50	7	Apoptosis & Cell cycle
AF059507	Bos taurus epidermal fatty acid-binding protein (E-FABP)	2.50	9	
AF196320	Bos taurus Interferon-tau1C	2.50	2	Cytokine family
BP111789	EST	2.50	6	
AF148221	Sus scrofa Fe epsilon receptor gamma chain	2.50	3	
AW409802	EST	2.51	7	
AA933350	EST	2.51	2	
X64125	Bos taurus DNA for SINE sequence Bov-2	2.52	2	
NM_005617	Homo sapiens ERP28	2.52	8	
L06151	Bos taurus PAG-2	2.52	11	Cytokine family
S78798	Homo sapiens 1-phosphatidylinositol-4-phosphate 5-kinase iso	2.53	2	Oncogene & Tumor inhibitor
R69737	EST	2.53	10	
AI326172	EST	2.53	12	
D29805	Homo sapiens mRNA for beta-1,4-galactosyltransferase	2.54	3	Enzyme
AI439018	EST	2.54	10	
BP112742	EST	2.54	8	
BP112039	EST	2.54	7	
BP111381	EST	2.54	10	
NM_006888	Homo sapiens calmodulin 1(CALM1)	2.55	3	Oncogene & Tumor inhibitor
V01270	Rattus norvegicus 18S, 5.8S, and 28S ribosomal RNAs	2.55	3	
BP112155	EST	2.56	8	
NM_005766	Homo sapiens FERM, RhoGEF (ARHGEF)	2.56	10	Cell adhesion
AW137541	EST	2.56	7	
AW352968	EST	2.56	10	
X98054	Homo sapiens G13 protein	2.56	12	
NM_001009	Homo sapiens ribosomal protein S5 (RPSS5)	2.56	3	Ribosomal
NM_002568	Homo sapiens poly(A) binding protein, cytoplasmic 1	2.57	2	DNA binding protein
AW073680	EST	2.57	7	
BP110049	EST	2.57	6	
BP111430	EST	2.57	10	
NM_009081	Mus musculus ribosomal protein L28 (Rpl28)	2.57	4	Ribosomal
AF195022	Bos taurus mucin (Muc1)	2.57	9	Cell adhesion
BP112702	EST	2.58	6	
AW113078	EST	2.58	7	
AW485507	EST	2.58	3	
AW357825	EST	2.58	10	
AA446434	EST	2.58	10	
AW461814	EST	2.60	12	
AW307679	EST	2.60	6	
AF147330	Homo sapiens clone YB24C12.	2.60	3	
L20216	Cercopithecus aethiops UV-damaged DNA-binding protein 127	2.60	3	Apoptosis & Cell cycle
NM_000991	Homo sapiens ribosomal protein L28 (RPL28)	2.60	12	Ribosomal
X69084	Bos taurus beta 2-microglobulin	2.62	6	Cytokine family
Z25531	Bos taurus repeat region DNA	2.62	3	
AA453356	EST	2.62	3	
AW345186	EST	2.62	12	
AW356197	EST	2.62	11	
BP112762	EST	2.64	10	
AW464239	EST	2.64	6	
U76713	Homo sapiens apobec-1 binding protein 1	2.64	8	
AW462171	EST	2.65	9	
AW464849	EST	2.66	10	
AW485419	EST	2.66	3	
AW312796	EST	2.66	8	
BP108284	EST	2.67	12	
AF131745	Homo sapiens clone 25110	2.67	12	
AW425519	EST	2.67	12	

AW307760	EST	2.68	2	
BP111676	EST	2.68	10	
BP108499	EST	2.69	9	
AW463647	EST	2.70	12	
A1797064	EST	2.70	2	
X74070	Homo sapiens BTF 3	2.70	3	Transcriptional regulator
AW426436	EST	2.70	12	
A1815375	EST	2.71	2	
AW461482	EST	2.71	10	
AF102850	Homo sapiens dolichyl-phosphate beta-glucosyltransferase	2.72	2	Enzyme
AW462512	EST	2.72	12	
L34015	Bos taurus cytochrome c oxidase subunit IV	2.72	12	Enzyme
BP111358	EST	2.73	10	
AW163018	EST	2.73	12	
H27490	EST	2.73	10	
AW315250	EST	2.74	10	
AW463583	EST	2.74	9	
A1353306	EST	2.74	6	
NM_006402	Homo sapiens hepatitis B virus x-interacting protein	2.75	10	Oncogene & Tumor inhibitor
AW428553	EST	2.75	12	
BP109933	EST	2.75	12	
AW315651	EST	2.76	12	
AW298937	EST	2.76	7	
AF092565	Homo sapiens splicing factor Prp8	2.76	6	Transcriptional regulator
X82879	Artificial sequences DNA for ART 2	2.76	2	
AW432050	EST	2.76	9	
J03835	Bos taurus proteolipid protein of the H <sup>+</sup> -ATPase	2.77	8	Enzyme
BP111391	EST	2.77	10	
NM_003651	Homo sapiens cold shock domain protein A (CSDA)	2.78	8	Heat shock protein
NM_002130	Homo sapiens HMGCS1	2.78	6	Enzyme
AJ009770	Homo sapiens putative transcription factor	2.79	10	Transcriptional regulator
BP112564	EST	2.79	6	
D86562	Sus scrofa DAD1	2.79	6	Apoptosis & Cell cycle
D23660	Homo sapiens ribosomal protein	2.79	6	Ribosomal
AB003093	Bos taurus ferritin H subunit	2.79	8	
AW416500	EST	2.79	2	
M75099	Homo sapiens rapamycin- and FK506-binding protein	2.79	6	
NM_003130	Homo sapiens sorcin (SRI)	2.79	3	ECM & related
BP109321	EST	2.80	10	
AW345511	EST	2.80	9	
NM_002916	Homo sapiens replication factor C 4	2.81	12	DNA binding protein
NM_012245	Homo sapiens SKI-interacting protein (SNW1)	2.81	7	
BP111625	EST	2.82	12	
BP109513	EST	2.82	10	
AF054502	Homo sapiens clone IMAGE Consortium 302831	2.82	3	Cytokine family
U84139	Bos taurus structure-specific recognition protein 1 (SSRP1)	2.83	6	
NM_006704	Homo sapiens suppressor of G2 allele of SKP1	2.84	12	
X74728	O.cuniculus elongation factor 1 beta	2.84	6	Transcriptional regulator
A1929021	EST	2.84	9	
AB017534	Bos taurus phospholipid hydroperoxide glutathione peroxidase	2.85	9	Enzyme
X60212	Rattus norvegicus ASI	2.85	6	Ribosomal
Z33621	Bos taurus SVSP109	2.87	2	
AW479239	EST	2.87	10	
NM_002574	Homo sapiens proliferation-associated gene A	2.87	6	Oncogene & Tumor inhibitor
AW241997	EST	2.87	2	
AB015343	Homo sapiens HRHFB2122	2.88	2	
BP109738	EST	2.88	7	
NM_002809	Homo sapiens PSMD3	2.89	12	
AW353298	EST	2.90	6	
AW354990	EST	2.90	8	
AW487044	EST	2.90	9	
AW464852	EST	2.91	9	
BP112712	EST	2.91	2	
AF057691	Mus musculus HMG box transcription factor (TCF-3)	2.91	7	Transcriptional regulator
AJ243656	Methanobacterium thermoautotrophicum ehbA-Q	2.93	2	
AW345995	EST	2.94	10	
BP111696	EST	2.94	7	
BP109363	EST	2.95	12	
BP108346	EST	2.95	7	
AF205890	Homo sapiens disabled-2	2.96	9	
AW426723	EST	2.96	12	
F22918	EST	2.98	3	
AW462829	EST	2.99	9	
AW314100	EST	3.00	10	
AW477939	EST	3.00	4	
AF172447	Mus musculus afadin	3.01	7	Cell adhesion
L32610	Homo sapiens ribonucleoprotein	3.01	7	Nuclear protein
AW415718	EST	3.01	3	
NM_003131	Homo sapiens serum response factor (SRF)	3.01	10	Transcriptional regulator
AJ132772	Bos taurus futb and r1f	3.01	6	
AB027196	Homo sapiens RIE2 sid2705	3.02	10	
U89439	Bos taurus ubiquitin-like protein	3.02	10	Heat shock protein
AW157835	EST	3.02	2	
AW428010	EST	3.02	10	
AF143815	Bos taurus ribosomal protein (QM)	3.02	12	Ribosomal
BP107805	EST	3.03	10	
A1816672	EST	3.03	6	
X85799	Bos taurus clone TUS4	3.03	2	
BP112769	EST	3.04	7	
A1681434	EST	3.04	10	
NM_002799	Homo sapiens PSMB7	3.04	10	
AF113682	Homo sapiens clone FLB3436 PRO0868 mRNA, complete cds	3.04	4	
AW194656	EST	3.04	2	
AF094481	Homo sapiens p20-CGGBP	3.04	6	DNA binding protein
BP112290	EST	3.05	10	
Y16849	Thermobacillus xylanilyticus xynA and abfA	3.05	2	
AW358489	EST	3.06	12	
AW357737	EST	3.06	3	
AF017178	Homo sapiens pro alpha 1(I) collagen (COL1A1)	3.06	3	ECM & related
X56649	Bos taurus Annexin I	3.06	2	Apoptosis & Cell cycle

NM_001003	Homo sapiens ribosomal protein, large, P1 (RPLP1)	3.06	6	Ribosomal
D29643	Homo sapiens KIAA0115	3.07	6	
BP109528	EST	3.07	8	
U83993	Homo sapiens P2X4 purinoreceptor	3.07	2	
BP109531	EST	3.08	3	
BP111521	EST	3.08	10	
L00160	Homo sapiens phosphoglycerate kinase (pgk)	3.09	9	Enzyme
AW427611	EST	3.09	12	
NM_004500	Homo sapiens heterogeneous nuclear ribonucleoprotein C	3.10	12	
AW462084	EST	3.11	8	
AF073839	Rattus norvegicus bithoraxoid-like protein	3.11	3	
M26198	Bos taurus ASS mRNA encoding argininosuccinate synthetase	3.11	9	Enzyme
NM_010064	Mus musculus Dncic2	3.12	3	Cytoskelton
NM_000387	Homo sapiens solute carrier family 25	3.12	2	Mitochondrial
AW467629	EST	3.12	9	
M63452	Bos taurus gamma globin and globin (PSI-2) pseudogene	3.12	12	
AW358722	EST	3.13	10	
BP109463	EST	3.14	6	
U63610	Homo sapiens plectin (PLEC1)	3.15	10	Cell adhesion
AW447274	EST	3.16	12	
M15886	Bos taurus endozepine	3.16	2	
NM_006817	Homo sapiens endoplasmic reticulum luminal protein (ERP28)	3.17	12	
AF086462	Homo sapiens clone ZD85G07	3.17	3	
AW484109	EST	3.17	12	
AW358732	EST	3.18	8	
AW336828	EST	3.18	9	
S54973	Bos taurus 20 alpha-hydroxysteroid dehydrogenase	3.18	8	Enzyme
AF043937	Homo sapiens DHAPAT	3.19	9	Enzyme
AW242801	EST	3.20	10	
AF144763	Bos taurus TIMP-1	3.21	3	ECM & related
X82321	Homo sapiens thiol-specific antioxidant	3.22	6	
X12877	Bos taurus cytokeratin A (no. 8)	3.22	12	Cytoskelton
AA165403	EST	3.23	9	
AF160639	EST	3.23	10	
AW418400	EST	3.24	12	
BP112791	EST	3.24	6	
BP108465	EST	3.24	7	
AF075377	EST	3.25	10	
AF110801	Homo sapiens interleukin-18 binding protein c precursor	3.25	9	Cytokine family
BP109473	EST	3.26	3	
BP112526	EST	3.28	8	
AW247882	EST	3.29	10	
L05093	Homo sapiens ribosomal protein L18a	3.30	6	Ribosomal
X63220	Bos taurus ubiquinone oxidoreductase complex	3.31	3	Enzyme
AW354042	EST	3.31	12	
NM_003144	Homo sapiens signal sequence receptor (SSR1)	3.31	6	
AW315092	EST	3.31	10	
D13630	Homo sapiens KIAA0005	3.31	12	
Z19087	Rattus norvegicus encoding TRAP-complex delta subunit	3.32	8	Cytokine family
AT001971	EST	3.33	2	
AW481256	EST	3.35	2	
U02610	Bos taurus acidic ribosomal protein P2	3.35	6	Ribosomal
AW409892	EST	3.35	6	
X06089	Bos taurus mitochondrial ATP synthase d-subunit	3.37	6	Mitochondrial
M58700	Sus scrofa ribonuclease inhibitor (RI)	3.37	2	
AF102243	Odocoileus hemionus DeerC106 tetranucleotide microsatellite F	3.37	2	
AI927078	EST	3.37	12	
AF083246	Homo sapiens HSPC028	3.38	12	
NM_003528	Homo sapiens H2B histone family, member Q (H2BFQ)	3.39	8	Heat shock protein
AB016798	Sus scrofa ribosomal protein L29/HIP	3.39	12	Ribosomal
BP108368	EST	3.40	2	
BP110498	EST	3.40	2	
AW344407	EST	3.40	2	
AF080067	Oryctolagus cuniculus SMVT	3.41	6	
NM_006750	Homo sapiens syntrophin beta 2 (SNTB2)	3.43	3	Cell adhesion
AF043735	Bos taurus 14-3-3 epsilon	3.43	12	
NM_000968	Homo sapiens ribosomal protein L4 (RPL4)	3.43	12	Ribosomal
BP112770	EST	3.44	3	
BP112237	EST	3.45	6	
AF086555	Homo sapiens clone ZE14E04	3.45	3	
BP109943	EST	3.46	3	
X53827	Bos taurus 70 KDa heat shock cognate protein	3.46	6	Heat shock protein
AW425551	EST	3.46	7	
NM_006320	Homo sapiens PGRMC2	3.50	3	Cytokine family
K02300	Rabbit muscle aldolase A	3.51	12	Enzyme
AW358439	EST	3.52	9	
X62048	Homo sapiens Wee1 hu	3.52	12	Apoptosis & Cell cycle
AF086313	Homo sapiens clone ZD52B10	3.53	6	
AF161464	Homo sapiens HSPC115	3.53	2	
AA933125	EST	3.55	2	
AF123303	Homo sapiens calcium-binding transporter	3.55	4	
BP109362	EST	3.56	3	
M14056	Bos taurus calpactin I heavy chain (p36) protein	3.56	8	Apoptosis & Cell cycle
X80230	Homo sapiens serine/threonine protein kinase	3.56	3	Enzyme
AW316417	EST	3.56	2	
BP108481	EST	3.57	2	
AW486434	EST	3.57	2	
M64923	Bos taurus C10 protein	3.58	12	
AW316509	EST	3.61	9	
AW464378	EST	3.63	3	
AW479092	EST	3.63	2	
AW336810	EST	3.63	12	
AW463657	EST	3.64	12	
AF161377	Homo sapiens HSPC259	3.64	6	
AW463224	EST	3.64	3	
BP109674	EST	3.65	6	
NM_000977	Homo sapiens ribosomal protein L13 (RPL13)	3.65	12	Ribosomal
X14330	Bos taurus galactose-binding lectin	3.65	12	ECM & related
BP110245	EST	3.65	8	
AW345289	EST	3.67	2	

AW487719	EST	3.67	12	
AF013213	Bos taurus elongation factor 1 alpha	3.67	8	Transcriptional regulator
AB014599	Homo sapiens KIAA0699 protein	3.67	6	
NM_001311	Homo sapiens cysteine-rich protein 1 (CRIP1)	3.68	9	
M22432	Mus musculus protein synthesis elongation factor Tu	3.69	8	Transcriptional regulator
BP111488	EST	3.69	2	
X04853	Bos taurus clathrin light chain b (lymphocyte LCb)	3.69	9	Membrane protein
AA188595	EST	3.70	12	
AW336383	EST	3.72	12	
X60195	Ovis aries 6-phosphogluconate dehydrogenase	3.73	6	Enzyme
D55670	Bos taurus thrombin inhibitor	3.75	3	
BP110942	EST	3.76	2	
AW358157	EST	3.77	10	
AF077037	Homo sapiens HSPC013	3.78	2	
AF076786	Oryctolagus cuniculus serum amyloid A-activating factor SAF-	3.78	10	Cytokine family
AW462855	EST	3.79	11	
BP111660	EST	3.80	10	
AF020513	Bos taurus PAG-11	3.82	12	Cytokine family
BP107856	EST	3.82	12	
NM_005556	Homo sapiens keratin 7 (KRT7)	3.83	2	Cytoskelton
J03275	Bos taurus ADP-ribosylation factor	3.83	6	
AA315083	EST	3.84	2	
NM_001607	Homo sapiens acetyl-Coenzyme A acyltransferase I(ACAA1)	3.85	2	Enzyme
AW446305	EST	3.85	2	
NM_005572	Homo sapiens lamin A/C (LMNA)	3.86	3	Cytoskelton
AB017196	Sus scrofa ACY-1 and rpL29/HIP	3.87	12	Apoptosis & Cell cycle
NM_002901	Homo sapiens reticulocalbin 1, EF-hand calcium binding domai	3.90	9	
AW425870	EST	3.91	2	
AW425363	EST	3.92	10	
BP108474	EST	3.92	6	
BP110848	EST	3.93	3	
D16235	Bos taurus phospholipase C-alpha (PLC alpha)	3.94	3	Oncogene & Tumor inhibitor
AW462423	EST	3.94	6	
NM_000973	Homo sapiens ribosomal protein L8 (RPL8)	3.95	6	Ribosomal
AW356374	EST	3.96	12	
A1276594	EST	3.96	3	
AW479384	EST	3.97	2	
AW308441	EST	3.98	2	
M38520	Bos taurus cytochrome-c oxidase subunit VIa-liver isoform	4.00	8	Enzyme
AF117237	Homo sapiens prefoldin subunit 2	4.00	3	
Z48478	Bos taurus C-type natriuretic peptide	4.02	2	
AW485951	EST	4.04	12	
BP107836	EST	4.04	11	
NM_003720	Homo sapiens down syndrome critical region gene 2 (DSCR2)	4.04	3	DNA binding protein
L07919	Homo sapiens homeodomain protein DLX-2	4.05	2	Transcriptional regulator
AW465337	EST	4.05	9	
AF124819	Homo sapiens T84 colon carcinoma cell IL-1beta	4.06	2	Cytokine family
U46064	Sus scrofa aldehyde reductase (ALR1)	4.11	3	Enzyme
AF086467	Homo sapiens clone ZD86G12	4.13	12	
NM_003746	Homo sapiens dynein, cytoplasmic, light polypeptide (PIN)	4.15	12	Cytoskelton
M81129	Bos taurus superoxide dismutase	4.15	12	Enzyme
NM_002634	Homo sapiens prohibitin (PHB)	4.15	3	Oncogene & Tumor inhibitor
AW326193	EST	4.17	2	
Y09537	Sus scrofa beta-1,2-N-acetylglucosaminyltransferase II	4.19	2	Enzyme
M33269	Bos taurus PRP-IV	4.19	3	Cytokine family
BP111704	EST	4.19	6	
NM_004427	Homo sapiens early development regulator 2 (EDR2)	4.20	2	
D89060	Homo sapiens oligosaccharyltransferase	4.21	6	Enzyme
BP111331	EST	4.22	3	
NM_001960	Homo sapiens eukaryotic translation elongation factor 1 delta (E	4.22	2	Transcriptional regulator
AW416539	EST	4.23	2	
AF003998	Rattus norvegicus Golgi SNARE GS15	4.24	2	
BP107685	EST	4.27	6	
AJ010842	Homo sapiens putative ATP(GTP)-binding protein	4.29	9	
BP112697	EST	4.29	3	
BP108905	EST	4.35	1	
F22997	EST	4.37	12	
AW463719	EST	4.38	2	
NM_006705	Homo sapiens GADD45G	4.42	2	
BP112902	EST	4.43	12	
AW431699	EST	4.44	3	
AW464645	EST	4.44	3	
NM_007065	Homo sapiens CDC37 cell division cycle 37 homolog	4.45	3	Apoptosis & Cell cycle
AB015610	Chlorocebus aethiops ribosomal protein S4X	4.46	6	Ribosomal
BP108150	EST	4.46	2	
AJ249625	Paracentrotus lividus Chaperonin (hsp60)	4.48	3	Heat shock protein
NM_001101	Homo sapiens actin beta (ACTB)	4.50	12	Cytoskelton
AW382042	EST	4.50	3	
A1097036	EST	4.50	3	
AW479403	EST	4.54	12	
AL035448	EST	4.55	2	
AW462223	EST	4.55	3	
U95040	Homo sapiens transcriptional corepressor hKAP1/TIF1B	4.55	12	Transcriptional regulator
AW347614	EST	4.57	3	
AF195417	Homo sapiens DEAD-box protein abstrakt (ABS)	4.60	2	
U71273	Sus scrofa glucosidase II	4.61	6	Enzyme
AW314897	EST	4.62	12	
AW298879	EST	4.66	6	
U16336	Bos taurus cathepsin B	4.70	6	Oncogene & Tumor inhibitor
AF027200	Bos taurus ROS-GC1	4.73	6	Enzyme
AW411242	EST	4.76	3	
AW445836	EST	4.76	3	
AW483923	EST	4.76	3	
BP107868	EST	4.76	2	
AF197060	Homo sapiens HIP-55	4.77	12	
NM_003969	Homo sapiens ubiquitin-conjugating enzyme E2M (UBE2M)	4.78	2	Heat shock protein
AW427732	EST	4.81	3	
AW195100	EST	4.83	2	
M59755	Bos taurus llens aldose reductase pseudogene	4.85	6	
AF083441	Homo sapiens SU11 isolog	4.85	12	Transcriptional regulator

BP109437	EST	4.85	9	
AW069622	EST	4.86	3	
NM_005801	Homo sapiens putative translation initiation factor (SUI1)	4.90	6	Transcriptional regulator
X51897	Rabbit histone H3.3A	4.90	3	Heat shock protein
AW461482	EST	4.91	2	
M17596	Bos taurus protein disulfide isomerase (PDI)	4.93	3	Enzyme
Z11531	Homo sapiens elongation factor-1-gamma	4.94	12	Transcriptional regulator
AW445525	EST	4.98	2	
BP112748	EST	5.04	8	
AW462183	EST	5.08	3	
NM_000979	Homo sapiens ribosomal protein L18 (RPL18)	5.11	12	Ribosomal
NM_004428	Homo sapiens ephrin-A1 (EFNA1)	5.14	3	
M16464	Bos taurus calpactin I light chain (p11)	5.15	12	Cytoskelton
AW425813	EST	5.22	2	
X72756	Bos taurus bt betaprime cop	5.22	2	
J05201	Bos taurus liver cytochrome c oxidase subunit CIX (VIII)	5.23	12	Enzyme
BP111688	EST	5.24	12	
AB017335	Homo sapiens KNSL4 and MAZ	5.30	2	Apoptosis & Cell cycle
AW462552	EST	5.31	12	
BP111710	EST	5.32	3	
AW359131	EST	5.33	3	
AW470246	EST	5.37	12	
M55409	Homo sapiens pancreatic tumor-related protein	5.43	6	Oncogene & Tumor inhibitor
BP107769	EST	5.46	3	
AF033096	Avena sativa nonphototropic hypocotyl 1 (NPH1-1)	5.47	12	
W89611	EST	5.50	2	
AF112202	Homo sapiens prenylated rab acceptor 1	5.51	3	
NM_001985	Homo sapiens electron-transfer-flavoprotein, beta polypeptide (	5.51	12	
NM_001747	Homo sapiens capping protein (actin filament), gelsolin-like (C.	5.53	2	Cytoskelton
NM_002949	Homo sapiens ribosomal protein L12 (MRPL12)	5.57	2	Ribosomal
BP111636	EST	5.69	9	
S65367	Bos taurus leucine aminopeptidase	5.70	2	Enzyme
NM_012198	Homo sapiens grancalcin (GCL)	5.71	3	
NM_000210	Homo sapiens integrin, alpha 6 (ITGA6)	5.74	3	Cell adhesion
S45392	Rats heat shock protein 90	5.84	6	Heat shock protein
X74191	Bos taurus microsatellite DNA INRA165	5.85	2	
U41668	Homo sapiens deoxyguanosine kinase	5.89	3	Enzyme
AW314471	EST	5.91	3	
AW482128	EST	5.94	12	
AW410172	EST	5.98	12	
NM_004393	Homo sapiens dystroglycan 1 (DAG1)	6.00	12	Cell adhesion
BP109730	EST	6.01	2	
NM_006397	Homo sapiens ribonuclease HI, large subunit (RNASEHI)	6.05	3	Enzyme
U47101	Homo sapiens NiR-like protein (hNiR)	6.12	3	
AW462425	EST	6.13	3	
L06075	Bos taurus cathepsin B	6.16	2	Oncogene & Tumor inhibitor
AF034607	Homo sapiens chloride channel ABP	6.19	8	Membrane protein
AW314471	EST	6.20	3	
AW464605	EST	6.25	12	
X04851	Bos taurus clathrin light chain a (lymphocyte LCa)	6.27	12	Membrane protein
AL049976	Homo sapiens DKFZp564B042	6.28	12	
U01946	Ovis aries secretory protein	6.29	12	
M83104	Bos taurus cytochrome b5 reductase	6.36	2	Enzyme
AW465150	EST	6.37	12	
NM_001273	Homo sapiens CHD4	6.43	12	
AW431917	EST	6.45	12	
AW464536	EST	6.52	5	
AJ000039	Bos taurus glyceraldehyde 3-phosphate dehydrogenase	6.57	12	Enzyme
AW356414	EST	6.64	3	
X04152	Bos taurus cytokeratin 19	6.67	3	Cytoskelton
NM_012193	Homo sapiens frizzled homolog 4 (Drosophila) (FZD4)	6.78	2	
D14073	Bos taurus cyclophilin B	6.78	3	
AW316336	EST	6.79	3	
BP112760	EST	6.82	12	
AW383166	EST	6.84	2	
AW482335	EST	6.87	12	
NM_011072	Mus musculus profilin 1 (Pfn1)	6.94	3	Cytoskelton
Y09206	Bos taurus MHC class I protein molecule D18.2	6.96	2	Cytokine family
Z24725	Homo sapiens mitogen inducible gene mig-2	6.97	3	Apoptosis & Cell cycle
U21661	Rattus norvegicus myotrophin	7.06	2	Cytokine family
AF020510	Bos taurus PAG-8	7.07	3	Cytokine family
NM_007192	Homo sapiens FACTP140	7.23	6	Transcriptional regulator
S57412	Rabbits protein phosphatase X	7.24	2	Enzyme
X16312	Homo sapiens phosphatase/casein kinase II beta subunit	7.30	12	Enzyme
AW402107	EST	7.35	3	
NM_001416	Homo sapiens EIF4A1	7.36	12	Transcriptional regulator
AF015767	Homo sapiens brain and reproductive organ-expressed protein	7.36	3	
BP112940	EST	7.45	3	
M21044	Bos taurus MHC class I BoLA	7.65	2	Cytokine family
NM_007317	Homo sapiens kinesin-like 4 (KNSL4)	7.66	2	
AW465477	EST	7.67	12	
AW427436	EST	7.76	12	
AW327928	EST	7.82	12	
AF182001	Bos taurus D4-GDP-dissociation inhibitor (D4-GDI)	7.82	3	
AW307840	EST	7.86	3	
AW465056	EST	7.88	3	
X56597	Homo sapiens humFib fibrillarlin	7.97	12	
AW356736	EST	8.00	2	
AW353230	EST	8.01	3	
AF207664	Homo sapiens matrix metalloprotease (ADAMTS1)	8.03	3	ECM & related
X01809	Bos taurus cathepsin 3' terminus	8.08	12	Oncogene & Tumor inhibitor
NM_005022	Homo sapiens profilin 1 (PFN1)	8.09	12	Cytoskelton
NM_002436	Homo sapiens membrane protein, palmitoylated I (55kD)	8.33	12	Membrane protein
X13684	Bos taurus glutathione peroxidase (gpx1)	8.39	3	Enzyme
X56503	Sus scrofa casein kinase II beta subunit (CKII beta)	8.55	12	Enzyme
BP112768	EST	9.33	12	
AB003094	Bos taurus ferritin L subunit	9.38	12	
AW345567	EST	9.38	12	
NM_001404	Homo sapiens EEF1G	9.43	12	Transcriptional regulator
NM_005720	Homo sapiens ARPC1B	9.45	3	Cytoskelton
AW486080	EST	9.52	12	
AF217197	Homo sapiens FBP interacting repressor (FIR)	9.80	12	Transcriptional regulator
X89984	Homo sapiens BCL7A protein	10.31	12	Cytoskelton
NM_000365	Homo sapiens triosephosphate isomerase 1 (TPI1)	10.52	12	
AF000137	Bos taurus connective tissue growth factor precursor (CTGF)	12.18	12	Cytokine family
NM_004494	Homo sapiens hepatoma-derived growth factor (HDGF)	13.52	12	Oncogene & Tumor inhibitor
AB009282	Homo sapiens mRNA for cytochrome b5	16.48	12	
Z71872	EST	18.60	12	
BP111694	EST	20.40	12	
BP109950	EST	21.55	12	
X14926	Mus musculus calreticulin	24.00	12	

**Supplement Table 2**

Two-fold differentially expressed genes between Day 14E vs Day 21E.

Accession#	Gene name	D21E/D14E k-means	classification
Day 21E /Day 14E down-regulated genes (< 0.5)			
U21661	Rattus norvegicus myotrophin	0.28	2 Cytokine family
AW466068	EST	0.40	8
Day 21E /Day 14E up-regulated genes (2 <)			
NM_000969	Homo sapiens ribosomal protein L5 (RPL5)	2.00	6 Ribosomal
AW426758	EST	2.00	7
AP000520	Homo sapiens chromosome 6p21.3, HLA Class I region	2.01	7
NM_001145	Homo sapiens RNase A family 5 (ANG)	2.01	10 Enzyme
NM_004374	Homo sapiens cytochrome c oxidase subunit VIc (COX6C)	2.01	8 Mitochondrial
NM_002300	Homo sapiens lactate dehydrogenase B (LDHB)	2.01	6 Enzyme
AW461482	EST	2.01	10
U87641	Bos taurus clone J9 mitochondrial D-loop	2.01	8 Mitochondrial
AW466029	EST	2.02	5
AW479049	EST	2.02	7
AW312796	EST	2.02	8
X59693	Bos taurus ubiquinol-cytochrome-c reductase (subunit II)	2.02	6 Enzyme
BP112760	EST	2.03	12
X79866	Bos taurus VIa L	2.03	4
AF161388	Homo sapiens HSPC270	2.03	8
AW242801	EST	2.03	10
AF225959	Mus musculus adhesion regulating molecule ARM-1	2.03	7 Cell adhesion
BP109543	EST	2.03	5
Y10811	Bos taurus precystatin C	2.03	9 Oncogene & Tumor inhibitor
BP109609	EST	2.04	9
BP112289	EST	2.04	7
BP112061	EST	2.04	6
NM_006676	Homo sapiens ubiquitin specific protease 20 (USP20)	2.05	10 Enzyme
NM_002898	Homo sapiens single stranded interacting protein 2 (RBMS2)	2.05	5 RNA binding protein
BP107876	EST	2.05	4
AW353438	EST	2.05	7
NM_004663	Homo sapiens RAB11A	2.05	4 Oncogene & Tumor inhibitor
AW336350	EST	2.05	7
BP111676	EST	2.06	10
M83656	Bos taurus cytoplasmic phosphotyrosyl protein phosphatase	2.06	9 Enzyme
BP107831	EST	2.06	3
AF102243	Odocoileus hemionus DeerC106 tetranucleotide microsatellite F	2.06	2
BP111076	EST	2.06	7
NM_000978	Homo sapiens ribosomal protein L23 (RPL23)	2.06	6 Ribosomal
AW432050	EST	2.06	9
H44982	EST	2.07	10
NM_006704	Homo sapiens suppressor of G2 allele of SKP1	2.07	12
AW464570	EST	2.07	3
BP108869	EST	2.07	7
AW465337	EST	2.07	9
NM_012383	Homo sapiens osteoclast stimulating factor 1 (OSTF1)	2.07	11
AJ243486	Cyprinus carpio uncoupling protein 2 (UCP2)	2.08	7
D12816	Bos taurus actin2	2.08	5 Cytoskelton
S68400	Bos taurus elongation factor 2 3'-noncoding region homolog	2.09	6 Transcriptional regulator
X91895	Bos taurus PAS-6 and PAS-7 protein	2.09	4 ECM & related
AW463657	EST	2.09	12
BP110521	EST	2.09	4
BP111435	EST	2.09	10
M63452	Bos taurus gamma globin and globin (PSI-2) pseudogene	2.10	12
AW484739	EST	2.10	4
AW461352	EST	2.10	5
AW462855	EST	2.10	11
BP108349	EST	2.10	7
U58682	Homo sapiens ribosomal protein S28	2.10	6 Ribosomal
AW354042	EST	2.11	12
AW403893	EST	2.11	10
AW445836	EST	2.11	3
BP110241	EST	2.12	6
AW487793	EST	2.13	7
NM_009081	Mus musculus ribosomal protein L28 (Rpl28)	2.13	4 Ribosomal
NM_004143	Homo sapiens melanocyte specific gene 1 (MSG1)	2.13	7 Cytoskelton
BP110294	EST	2.13	8
BP108499	EST	2.14	9
AW354303	EST	2.14	8
AF205890	Homo sapiens disabled-2	2.14	9
AJ000518	Bos taurus BS	2.14	8
AW477773	EST	2.14	10
BP106819	EST	2.14	9
AF202922	Homo sapiens LRP16	2.14	10
X99909	Canus sp. ribosomal protein L4	2.14	8 Ribosomal
S70448	Bos taurus F1Fo-ATP synthase complex Fo membrane domain	2.15	8 Enzyme
AF195022	Bos taurus mucin	2.15	9 Cell adhesion
NM_003011	Homo sapiens SET translocation	2.15	7
BP108322	EST	2.15	10
X53553	Bos taurus insulin-like growth factor II (IGF-II)	2.16	10 Cytokine family
V01270	Rattus norvegicus 18S, 5.8S, and 28S ribosomal RNAs	2.16	3
M62428	Bos taurus polyubiquitin	2.16	7 Heat shock protein
AW069622	EST	2.17	3
AW445452	EST	2.17	7
AA615941	EST	2.17	10
AW427810	EST	2.17	10
AW314057	EST	2.18	9
M13214	Bos taurus galactosyltransferase	2.19	7 Enzyme
U11927	Bos gaurus vacuolar H-ATPase subunit D (VATD)	2.19	10 Enzyme
U83076	EST	2.19	4
AW130325	EST	2.19	4
AW345491	EST	2.19	8
BP111440	EST	2.19	9
AF086555	Homo sapiens clone ZE14E04	2.19	3
NM_001010	Homo sapiens ribosomal protein S6 (RPS6)	2.19	8 Ribosomal
NM_006496	Homo sapiens GNAI3	2.20	8 DNA binding protein
AW345589	EST	2.20	10
AF181462	Bos taurus Dlk	2.21	8



BP107512	EST	2.21	4	
X06088	Bos taurus mitochondrial ATP synthase b-subunit	2.21	8	Mitochondrial
NM_001827	Homo sapiens CDC28 protein kinase 2 (CKS2)	2.23	8	Apoptosis & Cell cycle
AW437662	EST	2.24	10	
M27239	Bos taurus PRP-II	2.24	11	Cytokine family
BP108218	EST	2.24	9	
BP107462	EST	2.25	6	
BP110830	EST	2.25	8	
BP106906	EST	2.25	8	
NM_003369	Homo sapiens UV radiation resistance associated	2.26	10	Apoptosis & Cell cycle
BP109619	EST	2.26	4	
X13698	Bos taurus ribonucleoprotein SS-B/La	2.26	10	Nuclear protein
NM_005868	Homo sapiens BET1	2.27	6	Membrane protein
AF161393	Homo sapiens HSPC275	2.27	10	
D55670	Bos taurus thrombin inhibitor	2.28	3	
NM_000291	Homo sapiens phosphoglycerate kinase 1 (PGK1)	2.28	10	Enzyme
AW464024	EST	2.28	5	
AW357737	EST	2.29	3	
BP109708	EST	2.29	9	
NM_003011	Homo sapiens SET translocation	2.29	10	
AW463583	EST	2.29	9	
NM_005572	Homo sapiens lamin A/C (LMNA)	2.29	3	Cytoskelton
BP108502	EST	2.30	9	
AW427905	EST	2.30	7	
BP110322	EST	2.30	5	
U39357	Ovis aries beta actin	2.31	6	Cytoskelton
AF016090	Bos taurus mitochondrial D-loop DNA	2.31	10	Mitochondrial
BP110722	EST	2.31	8	
AW336828	EST	2.31	9	
AW463047	EST	2.31	10	
AI936589	EST	2.32	7	
AC002550	Homo sapiens BAC clone CIT987SK-A-101F10	2.32	9	
AW463191	EST	2.32	10	
L22095	Bos taurus uterine milk protein	2.33	7	
X63436	Bos taurus poly(A) polymerase	2.33	9	Enzyme
NM_003713	Homo sapiens phosphatidic acid phosphatase type 2B	2.33	4	Enzyme
NM_001021	Homo sapiens ribosomal protein S17 (RPS17)	2.34	8	Ribosomal
AF017178	Homo sapiens pro alpha 1(I) collagen (COL1A1)	2.34	3	ECM & related
NM_002901	Homo sapiens reticulocalbin 1	2.34	9	
AF086136	Homo sapiens clone ZA89C06	2.35	7	
NM_002291	Homo sapiens laminin beta 1 (LAMB1)	2.35	10	ECM & related
NM_000995	Homo sapiens ribosomal protein L34 (RPL34)	2.35	4	Ribosomal
BP111119	EST	2.36	7	
AW425720	EST	2.36	5	
AW487044	EST	2.36	9	
AB027196	Homo sapiens RIE2 sid2705	2.37	10	
AW425637	EST	2.38	10	
AW353384	EST	2.38	4	
NM_002629	Homo sapiens phosphoglycerate mutase 1 (PGAM1)	2.38	6	
AF033096	Avena sativa nonphototropic hypocotyl 1 (NPH1-1)	2.39	12	
BP110221	EST	2.39	8	
AA945062	EST	2.39	7	
NM_003130	Homo sapiens sorcin (SRI)	2.39	3	ECM & related
AJ132583	Homo sapiens puromycin sensitive aminopeptidase	2.40	4	Enzyme
AW172770	EST	2.40	9	
AW437818	EST	2.40	10	
AF043937	Homo sapiens DHAPAT	2.40	9	Enzyme
AW357664	EST	2.41	7	
NM_008090	Mus musculus GATA binding protein 2 (Gata2)	2.41	5	Transcriptional regulator
AW417998	EST	2.42	9	
BP106875	EST	2.42	6	
M24103	Bos taurus ADP/ATP translocase T2	2.42	6	Enzyme
BP111412	EST	2.42	7	
BP110097	EST	2.42	8	
BP110223	EST	2.42	8	
AW357142	EST	2.42	5	
NM_001028	Homo sapiens ribosomal protein S25 (RPS25)	2.42	4	Ribosomal
AB018262	Homo sapiens KIAA0719 protein	2.43	4	
AW465812	EST	2.43	7	
AW486093	EST	2.44	7	
BP111373	EST	2.44	10	
AF161496	Homo sapiens HSPC147	2.44	9	
AW428010	EST	2.45	10	
AW464572	EST	2.46	4	
AC006115	Homo sapiens BAC CIT-B-470f8 (BC330812)	2.46	9	
U37459	Mus musculus glia-derived neurotrophic growth factor (GDNF)	2.47	9	Cytokine family
AW462503	EST	2.48	7	
AW477939	EST	2.48	4	
BP108543	EST	2.49	10	
NM_004530	Homo sapiens MMP-2	2.49	7	ECM & related
L41543	Bos taurus epithelial mucin (MUC1)	2.50	11	Cell adhesion
AF281160	Bos taurus heparanase	2.51	1	Cytokine family
AF020512	Bos taurus PAG-10	2.51	5	Cytokine family
M26198	Bos taurus ASS	2.51	9	Enzyme
AW314057	EST	2.51	5	
AI075188	EST	2.51	9	
AL109939	Homo sapiens clone RP3-351K20	2.52	10	
D86562	Sus scrofa DAD1	2.52	6	Apoptosis & Cell cycle
AW464053	EST	2.53	5	
AI854588	EST	2.53	1	
AW479142	EST	2.53	6	
BP107816	EST	2.53	10	
NM_005563	Homo sapiens stathmin 1/oncoprotein 18 (STMN1)	2.54	4	Oncogene & Tumor inhibitor
AW464042	EST	2.54	4	
AW462171	EST	2.55	9	
NM_001025	Homo sapiens ribosomal protein S23 (RPS23)	2.55	8	Ribosomal
AF132048	Homo sapiens foccen-s	2.55	6	
AW316163	EST	2.56	8	
BP111462	EST	2.57	4	
BP110551	EST	2.58	5	

M18344	Bos taurus vitamin D-dependent calcium binding protein	2.60	11	
AF080067	Oryctolagus cuniculus SMVT	2.60	6	
NM_001615	Homo sapiens actin gamma 2 (ACTG2)	2.60	7	Cytoskelton
U31307	EST	2.60	6	
BP110176	EST	2.61	4	
BP110206	EST	2.61	9	
AW316336	EST	2.61	4	
D17554	Homo sapiens DNA-binding protein, TAXREB107	2.61	5	DNA binding protein
BP111429	EST	2.61	5	
M19962	Bos taurus cytochrome c oxidase subunit Vb (coxVb)	2.62	9	Enzyme
AW465855	EST	2.62	10	
AW447226	EST	2.62	9	
AW465818	EST	2.62	8	
AF161415	Homo sapiens HSPC297	2.62	4	
BP107704	EST	2.63	4	
BP106856	EST	2.63	8	
BP112312	EST	2.64	9	
BP111094	EST	2.65	9	
X17614	Bos taurus 3 beta hydroxy-5-ene steroid dehydrogenase/delta 5-	2.65	5	
AW464645	EST	2.65	3	
X03444	Homo sapiens nuclear envelope protein lamin A precursor	2.67	6	Cytoskelton
AF053368	Mus musculus lysyl oxidase-related protein 2 (Lor2)	2.67	7	
AW463677	EST	2.68	6	
Z71840	EST	2.69	7	
AW345047	EST	2.69	9	
BP111379	EST	2.69	7	
NM_000210	Homo sapiens integrin alpha 6 (ITGA6)	2.70	3	Cell adhesion
NM_005766	Homo sapiens FERM, RhoGEF (ARHGEF)	2.71	10	Cell adhesion
AL117429	Homo sapiens clone DKFZp434D146	2.72	5	
AW429371	EST	2.74	7	
AF192977	Ovis aries breast basic conserved protein 1	2.74	9	
NM_005722	Homo sapiens ARP2 actin-related protein 2 (ACTR2)	2.74	8	Cytoskelton
BP112497	EST	2.74	5	
AW462223	EST	2.74	3	
AW409892	EST	2.74	6	
AW462829	EST	2.75	9	
AW347614	EST	2.76	3	
M14630	Homo sapiens prothymosin alpha	2.76	9	Oncogene & Tumor inhibitor
M11120	Rat 28S rRNA	2.77	2	
NM_000820	Homo sapiens growth arrest-specific 6 (GAS6)	2.78	7	
NM_002130	Homo sapiens 3-hydroxy-3-methylglutaryl-Coenzyme A synthase	2.79	6	Enzyme
C94642	EST	2.80	7	
AW479743	EST	2.80	9	
U22229	Felis domesticus ribosomal protein L41	2.80	8	Ribosomal
AW170467	EST	2.80	9	
U46064	Sus scrofa aldehyde reductase (ALR1)	2.80	3	Enzyme
AW207190	EST	2.80	9	
NM_006471	Homo sapiens MLCB	2.81	8	Cytoskelton
AF086462	Homo sapiens clone ZD85G07	2.83	3	
L27152	Canis familiaris tight junction protein (ZO-2)	2.83	5	Cell adhesion
AF083243	Homo sapiens HSPC025	2.84	4	
AF177394	Homo sapiens dickkopf-1 (DKK-1)	2.84	5	
AI500332	EST	2.84	10	
BP106894	EST	2.85	8	
AW463166	EST	2.86	4	
NM_007278	Homo sapiens GABA(A) receptor-associated protein	2.87	9	
NM_003155	Homo sapiens stanniocalcin (STC1)	2.87	5	
AW001992	EST	2.87	9	
AW445987	EST	2.87	4	
U43701	Homo sapiens ribosomal protein L23a	2.88	6	Ribosomal
BP110513	EST	2.88	9	
M98392	Canis familiaris oligosaccharyltransferase 48 kDa subunit	2.89	6	Enzyme
X66091	Mus musculus ASF	2.89	4	RNA binding protein
AF124728	Homo sapiens acinusS'	2.89	4	Apoptosis & Cell cycle
AL133034	Homo sapiens clone DKFZp727K171	2.91	11	
AF020513	Bos taurus PAG-11	2.91	12	Cytokine family
BP110095	EST	2.93	8	
NM_006835	Homo sapiens cyclin I (CCNI)	2.93	4	Apoptosis & Cell cycle
NM_006429	Homo sapiens CCT7	2.93	11	
NM_003144	Homo sapiens signal sequence receptor alpha (SSR1)	2.94	6	
AW463113	EST	2.94	4	
NM_004447	Homo sapiens EPS8	2.94	5	Cytokine family
AF169035	Homo sapiens protein kinase SGK3	2.94	7	Oncogene & Tumor inhibitor
M18767	Homo sapiens complement subcomponent C1s	2.95	7	
AW464852	EST	2.96	9	
AB032826	Bos taurus selp mRNA for selenoprotein P	2.96	4	
U68187	Homo sapiens extracellular matrix protein 1 alternative splice v	2.97	5	ECM & related
BP108483	EST	2.97	6	
AF106681	Homo sapiens ras-related GTP-binding protein	2.97	11	
AW480830	EST	2.97	5	
D16235	Bos taurus mRNA for phospholipase C-alpha (PLC alpha)	2.97	3	Oncogene & Tumor inhibitor
L16953	Mus musculus tumor cell dnaJ-like protein 1	2.98	8	Oncogene & Tumor inhibitor
X91755	Bos taurus cathepsin L	2.98	8	Oncogene & Tumor inhibitor
M77234	Homo sapiens ribosomal protein S3a	2.98	6	Ribosomal
AW315050	EST	2.99	5	
AF144103	Homo sapiens NJAC protein	2.99	5	
AW447662	EST	2.99	4	
BP107806	EST	2.99	7	
L39214	Ovis aries glucose transporter type 3 (GLUT-3)	3.01	8	
M17733	Homo sapiens thymosin beta-4	3.01	6	Cytoskelton
NM_006831	Homo sapiens ATP/GTP-binding protein (HEAB)	3.02	6	
D29643	Homo sapiens KIAA0115	3.03	6	
BP111810	EST	3.03	9	
J05593	Homo sapiens TIMP-2	3.03	5	ECM & related
AF192338	Bos taurus PAG-21	3.05	7	Cytokine family
X54978	Bos taurus 17,000 dalton myosin light chain	3.06	4	Cytoskelton
D30750	Bos taurus Msx-1	3.06	10	Transcriptional regulator
AF210381	Bos taurus DDVt1	3.06	4	ECM & related
AF123303	Homo sapiens calcium-binding transporter	3.08	4	
D23660	Homo sapiens ribosomal protein	3.09	6	Ribosomal

AF092535	Homo sapiens mitogen-activated protein kinase p38delta	3.09	7	Cytokine family
L10240	Homo sapiens EMMPRIN	3.10	7	ECM & related
BP108456	EST	3.11	5	
M98498	Bos taurus ezrin	3.11	6	Cell adhesion
AW482909	EST	3.11	4	
X12796	Bos taurus high mobility group 1 (HMG1) protein	3.13	7	Transcriptional regulator
BP113042	EST	3.13	5	
AW464023	EST	3.14	5	
AW402107	EST	3.14	3	
AL137647	Homo sapiens clone DKFZp586M2424	3.14	10	
BP107808	EST	3.15	9	
AI985504	EST	3.17	10	
AB043994	Bos taurus MMP-2	3.19	7	ECM & related
AF096304	Homo sapiens putative sterol reductase SR-1 (TM7SF2)	3.22	10	Oncogene & Tumor inhibitor
AB028449	Homo sapiens helicase-MOI	3.24	9	DNA binding protein
AF192334	Bos taurus PAG-17	3.26	11	Cytokine family
AW173315	EST	3.30	10	
NM_005556	Homo sapiens keratin 7 (KRT7)	3.31	2	Cytoskelton
AF020511	Bos taurus PAG-9	3.31	5	Cytokine family
AW485227	EST	3.33	10	
AF133425	Homo sapiens tetraspanin TM4-C	3.34	9	
BP107921	EST	3.34	11	
AW446540	EST	3.35	9	
BP107862	EST	3.36	4	
BP110726	EST	3.37	9	
AW462037	EST	3.38	5	
NM_000178	Homo sapiens glutathione synthetase (GSS)	3.39	10	Enzyme
NM_005731	Homo sapiens actin related protein 2/3 complex, subunit 2	3.42	6	Cytoskelton
BP108275	EST	3.42	5	
NM_001425	Homo sapiens epithelial membrane protein 3 (EMP3)	3.43	10	Membrane protein
Y16698	Homo sapiens HIV associated non-Hodgkin's lymphoma	3.44	5	Oncogene & Tumor inhibitor
AW485575	EST	3.44	11	
AW462849	EST	3.45	11	
U89321	Homo sapiens nucleophosmin phosphoprotein (NPM)	3.45	5	
BP107341	EST	3.48	9	
X59617	Homo sapiens large subunit ribonucleotide reductase (RR1)	3.53	4	Enzyme
AW425334	EST	3.55	4	
NM_006838	Homo sapiens methionine methionyl aminopeptidase 2	3.56	4	Enzyme
AF192332	Bos taurus PAG-15	3.59	11	Cytokine family
M26576	Homo sapiens alpha-1 collagen type IV	3.59	6	ECM & related
AW358439	EST	3.60	9	
BP106942	EST	3.60	6	
BP110199	EST	3.61	4	
D50047	Bos taurus KQ217 MHC class II DQA2	3.62	5	Cytokine family
NM_003922	Homo sapiens hect domain and RCC1-like domain 1	3.62	10	
BP112988	EST	3.62	9	
BP107252	EST	3.66	4	
AW417930	EST	3.66	9	
AF210379	Bos taurus matrix Gla protein	3.68	5	ECM & related
AW356791	EST	3.68	5	
AW418429	EST	3.68	9	
AA157933	EST	3.69	9	
BP110145	EST	3.74	8	
BP112105	EST	3.74	9	
AW337037	EST	3.75	10	
L07872	Homo sapiens Jk-recombination signal binding protein	3.75	8	Apoptosis & Cell cycle
M73962	Bos taurus PAG-1	3.79	5	Cytokine family
BP111196	EST	3.80	9	
BP107825	EST	3.82	4	
L34261	Bos taurus palmitoyl-protein thioesterase	3.85	6	Enzyme
AW326216	EST	3.87	6	
AF192333	Bos taurus PAG-16	3.89	11	Cytokine family
K02130	Bos taurus cytochrome P-450 (SCC)	3.90	5	
AB004272	Bos taurus Placenta Growth Factor (PLGF)	3.91	5	Cytokine family
AL080102	Homo sapiens clone DKFZp564N1916	3.92	9	
AI887421	EST	3.94	4	
AW311764	EST	4.00	6	
AW465464	EST	4.01	5	
AW344418	EST	4.02	9	
AW430319	EST	4.03	6	
U49973	Homo sapiens Tigger1 transposable element	4.05	9	
AV404300	EST	4.08	7	
NM_001294	Homo sapiens CLPTM1	4.11	4	Cytokine family
AF020507	Bos taurus PAG-5	4.11	11	Cytokine family
J02840	Bos taurus placental lactogen (bPL-Ala)	4.14	5	Cytokine family
AW356197	EST	4.16	11	
Y00712	Bos taurus proteoglycan II	4.20	9	ECM & related
BP106981	EST	4.20	6	
NM_001006	Homo sapiens ribosomal protein S3A (RPS3A)	4.24	6	Ribosomal
AW482131	EST	4.25	4	
V00493	Homo sapiens alpha globin	4.26	9	
AI052255	EST	4.26	9	
U02892	Bos taurus Angus 70 kda heat shock protein-2 (HSP70-2)	4.28	6	Heat shock protein
D90069	Bos taurus adenylate kinase isozyme 2	4.29	9	Oncogene & Tumor inhibitor
BP112100	EST	4.30	5	
M80328	Bos taurus PL-Val	4.32	5	Cytokine family
J03604	Bos taurus glutamine synthetase	4.38	9	Enzyme
L47641	Bos taurus type III pro-collagen	4.39	4	ECM & related
D88033	Bos taurus elenoprotein P-like protein	4.43	9	
AF144628	Mus musculus SLIT2	4.47	9	
NM_003289	Homo sapiens tropomyosin 2 (beta) (TPM2)	4.47	11	Cytoskelton
M73961	Ovis aries PAG-1	4.52	6	Cytokine family
BP106989	EST	4.52	8	
BP106952	EST	4.53	6	
AI081391	EST	4.66	10	
BP106971	EST	4.67	8	
AW464827	EST	4.75	4	
AF153062	Canis familiaris type I collagen pro-alpha1(I) chain (COL1A1)	4.76	4	ECM & related
M65219	Bos taurus placental lactogen (PL-Ala)	4.76	5	Cytokine family
AF059507	Bos taurus epidermal fatty acid-binding protein (E-FABP)	4.80	9	

J05391	Bos taurus glycoprotein III (GpIII)	4.82	5	ECM & related
AF192330	Bos taurus PAG-13	4.84	5	Cytokine family
U09861	Bos taurus 70 kDA heat-shock protein (hsp70)	4.86	4	Heat shock protein
AF079545	Ovis aries placental lactogen precursor (PL)	4.90	8	Cytokine family
AC005041	Homo sapiens BAC clone RP11-523H20	4.95	10	
AW417073	EST	4.95	9	
L02897	Dog nonerythroid beta-spectrin	5.01	9	
AW481108	EST	5.05	4	
AF020514	Bos taurus PAG-12	5.06	11	Cytokine family
AW347854	EST	5.08	6	
AF020509	Bos taurus PAG-7	5.14	11	Cytokine family
AW465912	EST	5.20	11	
M25493	Bos taurus PRP-I	5.22	11	Cytokine family
AW464661	EST	5.29	11	
AF192336	Bos taurus PAG-19	5.47	11	Cytokine family
AW260930	EST	5.60	4	
AI299947	EST	5.67	6	
AB004800	Sus scrofa S100C protein	5.68	9	Cytokine family
AW464536	EST	5.78	5	
BP111926	EST	5.83	11	
AW465434	EST	5.86	11	
AW465275	EST	6.23	6	
AA837482	EST	6.27	5	
J02944	Bos taurus PRP-1	6.40	11	Cytokine family
AF125041	Ovis aries decorin	6.42	4	
AF020508	Bos taurus PAG-6	6.54	11	Cytokine family
M21683	Sus scrofa nonhistone protein HMG1	6.58	8	DNA binding protein
NM_001553	Homo sapiens IGFBP7	6.62	9	Cytokine family
BP110986	EST	6.62	4	
M32303	Bos taurus metalloproteinase inhibitor	6.82	11	ECM & related
L06151	Bos taurus PAG-2	6.86	11	Cytokine family
NM_001613	Homo sapiens actin, alpha 2 (ACTA2)	6.98	4	Cytoskelton
AW411362	EST	7.24	9	
AF196320	Bos taurus Interferon-tau1C	7.39	2	Cytokine family
S74761	Bos taurus water channel protein CHIP29	7.44	9	Membrane protein
X15975	Bos taurus PRP-V	7.59	11	Cytokine family
X65210	Bos taurus microsatellite DNA	7.62	11	
AF105429	Ovis aries H19	7.81	4	
AA459491	EST	8.03	11	
BP111741	EST	8.28	11	
BP107836	EST	8.34	11	
AW461617	EST	8.75	10	
AW464858	EST	8.86	11	
AB008683	Bos taurus alpha2(I) collagen (COL1A2)	9.27	4	ECM & related
AW463668	EST	9.53	5	
X59504	Bos taurus prolactin-like protein (PRP-VI)	9.62	11	Cytokine family
X15112	Bos taurus cytochrome c oxidase subunit VIb (AED)	10.01	4	
AW447630	EST	10.10	4	
U21660	Bos taurus phosphatidylcholine transfer protein	10.13	4	
AW484058	EST	10.27	9	
BP112727	EST	10.74	11	
BP107329	EST	11.33	4	
BP111398	EST	12.04	11	
AW463993	EST	12.50	11	
AW486937	EST	14.86	4	
AF004877	Homo sapiens pro-alpha 2(I) collagen (COL1A2)	16.08	4	ECM & related
AW462349	EST	19.49	11	
AW484050	EST	20.80	11	
BP108333	EST	22.13	11	

Supplement Table 3

Two-fold differentially expressed genes between Day 21E vs Day 28EEM.

Accession#	Gene name	D28M/D21E	k-means	classification
	Day 28EEM/Day 21E down-regulated genes (< 0.5)			
BP108333	EST	0.05	11	
AF196320	Bos taurus Interferon-tau1C	0.07	2	Cytokine family
AI299947	EST	0.12	6	
BP107329	EST	0.15	4	
AW486937	EST	0.15	4	
BP111398	EST	0.20	11	
AF033096	Avena sativa nonphototropic hypocotyl 1 (NPH1-1)	0.22	12	
AW461617	EST	0.23	10	
L10240	Homo sapiens EMMPRIN	0.24	7	ECM & related
U21660	Bos taurus phosphatidylcholine transfer protein	0.27	4	
AW347854	EST	0.27	6	
X15112	Bos taurus cytochrome c oxidase subunit VIb (AED)	0.28	4	
L34261	Bos taurus palmitoyl-protein thioesterase	0.29	6	Enzyme
M26576	Homo sapiens alpha-1 collagen type IV	0.29	6	ECM & related
NM_001747	Homo sapiens capping protein, gelsolin-like (CAPG)	0.32	2	Cytoskelton
BP109933	EST	0.33	12	
U46064	Sus scrofa aldehyde reductase (ALR1)	0.33	3	Enzyme
AF020513	Bos taurus PAG-11	0.33	12	Cytokine family
M11120	Rat 28S rRNA	0.33	2	
AW479517	EST	0.34	8	
NM_004718	Homo sapiens COX7A2L	0.34	8	Enzyme
BP112770	EST	0.35	3	
AI985504	EST	0.35	10	
AF144763	Bos taurus TIMP-1	0.35	3	ECM & related
AF034607	Homo sapiens chloride channel ABP	0.36	8	Membrane protein
NM_005556	Homo sapiens keratin 7 (KRT7)	0.36	2	Cytoskelton
AJ243656	Methanobacterium thermoautotrophicum ehbA-Q	0.37	2	
M83104	Bos taurus cytochrome b5 reductase	0.37	2	Enzyme
BP107836	EST	0.38	11	
AW427611	EST	0.38	12	
X59693	Bos taurus ubiquinol-cytochrome-c reductase (subunit II)	0.38	6	Enzyme
D84557	Homo sapiens HsMcm6	0.38	12	
M77234	Homo sapiens ribosomal protein S3a	0.38	6	Ribosomal
AF033095	Homo sapiens testis enhanced gene transcript protein	0.38	12	Transcriptional regulator
AW482335	EST	0.38	12	
AI500332	EST	0.38	10	
AB043994	Bos taurus MMP-2	0.39	7	ECM & related
NM_003720	Homo sapiens down syndrome critical region 2 (DSCR2)	0.39	3	DNA binding protein
AV404300	EST	0.39	7	
AI827165	EST	0.39	8	
AB009282	Homo sapiens mRNA for cytochrome b5	0.39	12	
NM_002949	Homo sapiens ribosomal protein L12 (MRPL12)	0.39	2	Ribosomal
D86562	Sus scrofa DAD1	0.39	6	Apoptosis & Cell cycle
U49973	Homo sapiens Tigger1 transposable element	0.39	9	
AF086462	Homo sapiens clone ZD85G07	0.39	3	
BP111625	EST	0.40	12	
AJ000039	Bos taurus glyceraldehyde 3-phosphate dehydrogenase	0.40	12	Enzyme
AF197060	Homo sapiens src homology 3 domain-containing protein HIP-4	0.40	12	
AW463657	EST	0.40	12	
AW484367	EST	0.40	8	
AF083246	Homo sapiens HSPC028	0.40	12	
AF160639	EST	0.40	10	
J03604	Bos taurus glutamine synthetase	0.40	9	Enzyme
AW464827	EST	0.40	4	
NM_002574	Homo sapiens proliferation-associated gene A	0.40	6	Oncogene & Tumor inhibitor
AJ249625	Paracentrotus lividus Chaperonin (hsp60)	0.41	3	Heat shock protein
Z25531	Bos taurus repeat region DNA	0.41	3	
NM_000365	Homo sapiens triosephosphate isomerase 1 (TPI1)	0.41	12	
AW416500	EST	0.41	2	
NM_002130	Homo sapiens HMGCS1	0.41	6	Enzyme
AC002550	Homo sapiens Chromosome 16 BAC clone CIT987SK-A-101F	0.41	9	
AI326172	EST	0.41	12	
NM_002107	Homo sapiens H3 histone, family 3A (H3F3A)	0.42	12	Heat shock protein
AW485507	EST	0.42	3	
NM_001827	Homo sapiens CDC28 protein kinase 2 (CKS2)	0.42	8	Apoptosis & Cell cycle
NM_004393	Homo sapiens dystroglycan 1 (DAG1)	0.42	12	Cell adhesion
AF195417	Homo sapiens DEAD-box protein abstract (ABS)	0.42	2	
AW445987	EST	0.42	4	
AF083441	Homo sapiens SUI1 isolog	0.42	12	Transcriptional regulator
D14074	Bos taurus cyclophilin	0.42	8	
AF002693	Homo sapiens ATQL1 pseudogene	0.42	2	
M16464	Bos taurus calpactin I light chain (p11)	0.42	12	Cytoskelton
X16312	Homo sapiens phosphatase/casein kinase II beta subunit	0.43	12	Enzyme
AC005041	Homo sapiens BAC clone RP11-523H20 from Ch2	0.43	10	
AB003094	Bos taurus ferritin L subunit	0.43	12	
NM_005801	Homo sapiens putative translation initiation factor (SUI1)	0.43	6	Transcriptional regulator
NM_004596	Homo sapiens small nuclear ribonucleoprotein polypeptide A	0.43	12	Nuclear protein
M55409	Homo sapiens pancreatic tumor-related protein	0.43	6	Oncogene & Tumor inhibitor
AW195100	EST	0.43	2	
X76980	Bos taurus epsilon-COP	0.43	8	
U31307	EST	0.43	6	
AW353298	EST	0.43	6	
AW485951	EST	0.43	12	
AF131745	Homo sapiens clone 25110	0.43	12	
Y16849	Thermobacillus xylanilyticus xynA and abfA	0.43	2	
AW298224	EST	0.44	6	
NM_006704	Homo sapiens suppressor of G2 allele of SKP1	0.44	12	
J05201	Bos taurus liver cytochrome c oxidase subunit CIX (VIII)	0.44	12	Enzyme
AF094481	Homo sapiens CGGBP	0.44	6	DNA binding protein
NM_000387	Homo sapiens solute carrier family 25	0.44	2	Mitochondrial
AW462084	EST	0.44	8	
AW486434	EST	0.44	2	
AA933350	EST	0.45	2	
NM_006496	Homo sapiens GNAI3	0.45	8	DNA binding protein
AF078863	Homo sapiens PTD010	0.45	8	

BP109730	EST	0.45	2	
X12877	Bos taurus cytokeratin A (no. 8)	0.45	12	Cytoskelton
AF015767	Homo sapiens brain and reproductive organ-expressed protein	0.45	3	
AW359222	EST	0.46	1	
AW359131	EST	0.46	3	
U09861	Bos taurus 70 kDa heat-shock protein (hsp70)	0.46	4	Heat shock protein
NM_005572	Homo sapiens lamin A/C (LMNA)	0.46	3	Cytoskelton
AW431917	EST	0.46	12	
M24103	Bos taurus ADP/ATP translocase T2	0.46	6	Enzyme
AW157835	EST	0.46	2	
Z25466	Bos taurus mitochondrial aspartate aminotransferase	0.46	10	Mitochondrial
NM_010064	Mus musculus Dncic2	0.46	3	Cytoskelton
NM_001416	Homo sapiens EIF4A1	0.46	12	Transcriptional regulator
BP112666	EST	0.46	3	
V01270	Rattus norvegicus 18S, 5.8S, and 28S ribosomal RNAs	0.46	3	
NM_002300	Homo sapiens lactate dehydrogenase B (LDHB)	0.46	6	Enzyme
X56503	Sus scrofa casein kinase II beta subunit (CKII beta)	0.46	12	Enzyme
V00654	Bos taurus mitochondrial genome	0.46	8	Mitochondrial
Z11531	Homo sapiens elongation factor-1-gamma	0.46	12	Transcriptional regulator
U01946	Ovis aries secretory protein	0.46	12	
M83656	Bos taurus cytoplasmic phosphotyrosyl protein phosphatase	0.46	9	Enzyme
NM_010447	Mus musculus heterogeneous nuclear ribonucleoprotein A1	0.46	6	Nuclear protein
AA188595	EST	0.46	12	
Z33879	Sus scrofa G-beta like protein	0.47	8	
AF044670	Homo sapiens 33 kDa Vamp-associated protein (VAP33)	0.47	10	Membrane protein
AF102850	Homo sapiens dolichyl-phosphate beta-glucosyltransferase	0.47	2	Enzyme
X56597	Homo sapiens humFib fibrillarlin	0.47	12	
X82879	Artificial sequences DNA for ART 2	0.47	2	
U21661	Rattus norvegicus myotrophin	0.47	2	Cytokine family
U65789	Bos taurus intercellular adhesion molecule-1 (ICAM-1)	0.47	8	Cell adhesion
X65210	Bos taurus microsatellite DNA	0.47	11	
AW336383	EST	0.47	12	
X06088	Bos taurus mRNA for mitochondrial ATP synthase b-subunit	0.47	8	Mitochondrial
AF161415	Homo sapiens HSPC297	0.47	4	
AW427732	EST	0.47	3	
AW464287	EST	0.48	8	
AA933125	EST	0.48	2	
AW466068	EST	0.48	8	
D90069	Bos taurus adenylate kinase isozyme 2	0.48	9	Oncogene & Tumor inhibitor
AW327109	EST	0.48	8	
BP112940	EST	0.48	3	
X02493	Homo sapiens interferon-inducible (cDNA 6-26)	0.48	6	Cytokine family
AW465818	EST	0.48	8	
M38520	Bos taurus cytochrome-c oxidase subunit VIa-liver isoform	0.48	8	Enzyme
X69084	Bos taurus beta 2-microglobulin	0.48	6	Cytokine family
AW356038	EST	0.48	8	
NM_001294	Homo sapiens CLPTM1	0.48	4	Cytokine family
BP106883	EST	0.49	8	
NM_003528	Homo sapiens H2B histone family, member Q (H2BFQ)	0.49	8	Heat shock protein
NM_001404	Homo sapiens eukaryotic translation elongation factor 1 gamma	0.49	12	Transcriptional regulator
AF092565	Homo sapiens splicing factor Prp8	0.49	6	Transcriptional regulator
U84139	Bos taurus structure-specific recognition protein 1 (SSRP1)	0.49	6	
BP111975	EST	0.49	8	
BP112742	EST	0.49	8	
NM_002809	Homo sapiens proteasome 26S subunit, non-ATPase, 3 (PSMD)	0.49	12	
AW432050	EST	0.49	9	
U17836	Bos taurus acidic ribosomal protein P2	0.49	2	Ribosomal
AW463047	EST	0.49	10	
AF102243	Odocoileus hemionus DeerC106 tetranucleotide microsatellite F	0.49	2	
AB006852	Rattus norvegicus phosphoarginine phosphatase	0.49	3	Enzyme
NM_006838	Homo sapiens methionine methionyl aminopeptidase 2	0.49	4	Enzyme
AW464605	EST	0.49	12	
A1908445	EST	0.50	3	
U76713	Homo sapiens apobec-1 binding protein 1	0.50	8	
AW461814	EST	0.50	12	
NM_006082	Homo sapiens tubulin, alpha, ubiquitous (K-ALPHA-1)	0.50	8	Cytoskelton
AW470246	EST	0.50	12	
M59755	Bos taurus llens aldose reductase pseudogene	0.50	6	
U71273	Sus scrofa glucosidase II	0.50	6	Enzyme
D16235	Bos taurus phospholipase C-alpha (PLC alpha)	0.50	3	Oncogene & Tumor inhibitor
AT001971	EST	0.50	2	
A1276594	EST	0.50	3	
NM_003969	Homo sapiens ubiquitin-conjugating enzyme E2M (UBE2M)	0.50	2	Heat shock protein
BP107694	EST	0.50	1	
AW307760	EST	0.50	2	
BP111504	EST	0.50	8	
AB000425	Sus scrofa endopeptidase 24.16	0.50	8	Oncogene & Tumor inhibitor
Day 28EEM/Day 21E up-regulated genes (2 <)				
Z11742	Bos taurus annexin XI	2.00	5	Apoptosis & Cell cycle
M80328	Bos taurus PL-Val	2.01	5	Cytokine family
X59504	Bos taurus PRP-VI	2.08	11	Cytokine family
D10989	Bos taurus endothelin ETB receptor	2.12	1	
AB005148	Bos taurus interleukin 1 (IL-1) receptor antagonist	2.13	1	Cytokine family
AF192336	Bos taurus PAG-19	2.17	11	Cytokine family
BP110455	EST	2.18	1	
J02840	Bos taurus placental lactogen (PL-Ala)	2.21	5	Cytokine family
M73961	Ovis aries PAG-1	2.35	6	Cytokine family
AF004133	Sus scrofa adipocyte membrane protein	2.66	1	Membrane protein
AW463219	EST	2.77	5	
BP111699	EST	2.85	5	
X01912	Goat epsilon I beta-globin	3.00	9	
AF020508	Bos taurus PAG-6	3.45	11	Cytokine family

**Supplement Table 4**

Two-fold differentially expressed genes between Day 28EEM vs Day 28F.

Accession#	Gene name	D28F/D28M	k-means	classification
Day 28F /Day 28EEM down-regulated genes (< 0.5)				
AW462349	EST	0.05	11	
AW484050	EST	0.12	11	
M73961	Ovis aries PAG-1	0.14	6	Cytokine family
X89984	Homo sapiens BCL7A protein	0.14	12	Cytoskelton
AA459491	EST	0.14	11	
X15975	Bos taurus PRP-V	0.15	11	Cytokine family
AW464858	EST	0.15	11	
BP111741	EST	0.15	11	
AF079545	Ovis aries placental lactogen precursor (PL)	0.16	8	Cytokine family
AF020509	Bos taurus PAG-7	0.19	11	Cytokine family
J02840	Bos taurus placental lactogen (bPL-Ala)	0.20	5	Cytokine family
X59504	Bos taurus PRP-VI	0.20	11	Cytokine family
S72871	Homo sapiens GATA-2 transcription factor	0.20	8	Transcriptional regulator
AW463993	EST	0.20	11	
M65219	Bos taurus placental lactogen (bPL-Ala)	0.22	5	Cytokine family
AF192336	Bos taurus PAG-19	0.22	11	Cytokine family
BP112760	EST	0.23	12	
AW464536	EST	0.23	5	
AF020508	Bos taurus PAG-6	0.23	11	Cytokine family
AA837482	EST	0.23	5	
BP107836	EST	0.24	11	
J02944	Bos taurus PRP-I	0.24	11	Cytokine family
BP112768	EST	0.24	12	
L06151	Bos taurus PAG-2	0.25	11	Cytokine family
AF020512	Bos taurus PAG-10	0.27	5	Cytokine family
AW465434	EST	0.27	11	
AW356791	EST	0.28	5	
AF020514	Bos taurus PAG-12	0.28	11	Cytokine family
AW464645	EST	0.28	3	
AW463668	EST	0.29	5	
BP112727	EST	0.29	11	
AW485575	EST	0.30	11	
AF192334	Bos taurus PAG-17	0.30	11	Cytokine family
AL133034	Homo sapiens clone DKFZp727K171	0.31	11	
Z11742	Bos taurus annexin XI	0.31	5	Apoptosis & Cell cycle
U89321	Homo sapiens nucleophosmin phosphoprotein (NPM)	0.32	5	
M25493	Bos taurus PRP-I	0.32	11	Cytokine family
M80328	Bos taurus bPL-Val	0.32	5	Cytokine family
X17614	Bos taurus 3 beta hydroxy-5-ene steroid dehydrogenase/delta 5-	0.32	5	
AF192333	Bos taurus PAG-16	0.32	11	Cytokine family
AF020507	Bos taurus PAG-5	0.34	11	Cytokine family
AW464661	EST	0.34	11	
AW465275	EST	0.34	6	
AW465912	EST	0.34	11	
AW462855	EST	0.34	11	
AF020511	Bos taurus PAG-9	0.35	5	Cytokine family
AF020510	Bos taurus PAG-8	0.35	3	Cytokine family
BP110551	EST	0.35	5	
AF106681	Homo sapiens ras-related GTP-binding protein	0.36	11	
BP110145	EST	0.37	8	
M33269	Bos taurus PRP-IV	0.37	3	Cytokine family
AF192332	Bos taurus PAG-15	0.37	11	Cytokine family
AW463219	EST	0.37	5	
NM_005720	Homo sapiens actin related protein 2/3 complex, subunit 1B	0.38	3	Cytoskelton
AW465464	EST	0.38	5	
NM_006429	Homo sapiens CCT7	0.39	11	
AW464023	EST	0.39	5	
BP111699	EST	0.39	5	
AW463677	EST	0.39	6	
K02130	Bos taurus cytochrome P-450 (SCC)	0.41	5	
AF004133	Sus scrofa adipocyte membrane protein	0.41	1	Membrane protein
D50047	Bos taurus KQ217 MHC class II DQA2	0.42	5	Cytokine family
NM_012198	Homo sapiens grancalcin (GCL)	0.42	3	
BP112100	EST	0.43	5	
AW461508	EST	0.43	5	
BP107921	EST	0.43	11	
AF080067	Oryctolagus cuniculus SMVT	0.43	6	
AW356197	EST	0.43	11	
L41543	Bos taurus epithelial mucin (MUC1)	0.43	11	Cell adhesion
AW462849	EST	0.44	11	
AF192330	Bos taurus PAG-13	0.46	5	Cytokine family
AF177394	Homo sapiens dickkopf-1 (DKK-1)	0.47	5	
BP107489	EST	0.47	5	
AW464053	EST	0.47	5	
Day 28F / Day 28EEM up-regulated genes (2 <)				
AF161496	Homo sapiens HSPC147	2.00	9	
AW479517	EST	2.00	8	
AW345567	EST	2.01	12	
AI816701	EST	2.01	7	
AW426436	EST	2.01	12	
NM_004530	Homo sapiens MMP-2	2.01	7	ECM & related
L10325	Bos taurus glutathione peroxidase (GPx) plasma isoform	2.01	7	Enzyme
X53553	Bos taurus insulin-like growth factor II (IGF-II)	2.01	10	Cytokine family
AW425047	EST	2.01	8	
BP112833	EST	2.01	1	
D84557	Homo sapiens HsMcm6	2.02	12	
AW485951	EST	2.03	12	
BP111504	EST	2.04	8	
AW315092	EST	2.04	10	
NM_010064	Mus musculus Dncic2	2.04	3	Cytoskelton
U41668	Homo sapiens deoxyguanosine kinase	2.04	3	Enzyme
AW307840	EST	2.04	3	
AW314100	EST	2.04	10	
AF083246	Homo sapiens HSPC028	2.05	12	
AW432050	EST	2.05	9	
NM_001827	Homo sapiens CDC28 protein kinase 2 (CKS2)	2.05	8	Apoptosis & Cell cycle

X00354	Bos taurus gamma globin	2.05	7	
AF092565	Homo sapiens splicing factor Prp8	2.06	6	Transcriptional regulator
AF034607	Homo sapiens chloride channel ABP	2.07	8	Membrane protein
AF002693	Homo sapiens ATQL1 pseudogene	2.07	2	
AI326172	EST	2.07	12	
AJ000186	Homo sapiens MAD2 protein	2.07	7	Cytokine family
AI276594	EST	2.07	3	
AW427732	EST	2.08	3	
AB017335	Homo sapiens KNSL4 and MAZ	2.08	2	Apoptosis & Cell cycle
AI827165	EST	2.09	8	
AW481254	EST	2.09	10	
AF161447	Homo sapiens HSPC329	2.10	8	
AW345789	EST	2.10	9	
AF110801	Homo sapiens interleukin-18 binding protein c precursor	2.10	9	Cytokine family
AW315457	EST	2.11	9	
AF039698	Homo sapiens antigen NY-CO-33	2.11	7	Cytokine family
BP112517	EST	2.11	1	
AW427810	EST	2.11	10	
BP111255	EST	2.11	7	
U71273	Sus scrofa glucosidase II	2.12	6	Enzyme
BP110613	EST	2.12	8	
BP109873	EST	2.13	7	
BP109935	EST	2.15	7	
AC002550	Homo sapiens BAC clone CIT987SK-A-101F10	2.16	9	
AF086313	Homo sapiens clone ZD52B10	2.17	6	
AB004275	Bos taurus VEGF-C	2.17	1	Cytokine family
BP109933	EST	2.17	12	
AW353298	EST	2.18	6	
AW314471	EST	2.18	3	
BP109730	EST	2.18	2	
BP106960	EST	2.19	9	
AL137647	Homo sapiens clone DKFZp586M2424	2.19	10	
BP112666	EST	2.20	3	
D14074	Bos taurus cyclophilin	2.21	8	
BP112133	EST	2.21	1	
AW416500	EST	2.21	2	
U49973	Homo sapiens Tigger1 transposable element	2.22	9	
AW299830	EST	2.22	10	
NM_002130	Homo sapiens HMGCS1	2.23	6	Enzyme
AI952986	EST	2.23	8	
AW483954	EST	2.24	3	
AW344559	EST	2.24	4	
BP111358	EST	2.24	10	
U21661	Rattus norvegicus myotrophin	2.24	2	Cytokine family
AW427170	EST	2.24	7	
X13698	Bos taurus ribonucleoprotein SS-B/La	2.25	10	Nuclear protein
NM_001145	Homo sapiens RNase A family 5 (ANG)	2.26	10	Enzyme
BP109382	EST	2.26	7	
U19921	Homo sapiens synaptotagmin I	2.26	1	
X59693	Bos taurus ubiquinol-cytochrome-c reductase (subunit II)	2.26	6	Enzyme
BP109023	EST	2.27	7	
NM_003011	Homo sapiens SET translocation	2.28	10	
AW462084	EST	2.31	8	
AJ132772	Bos taurus futb and rtlf	2.32	6	
BP107868	EST	2.33	2	
AF198487	Homo sapiens transcription factor LBP-1b	2.34	4	Transcriptional regulator
AW314471	EST	2.35	3	
NM_005563	Homo sapiens stathmin 1/oncprotein 18 (STMN1)	2.36	4	Oncogene & Tumor inhibitor
AF144763	Bos taurus TIMP-1 protein	2.36	3	ECM & related
AF043937	Homo sapiens DHAPAT	2.37	9	Enzyme
M86739	Bos taurus neuropeptide Y receptor	2.38	7	Cytokine family
Y16533	Ovis aries IGF-II	2.39	7	Cytokine family
AW484739	EST	2.39	4	
S76474	Homo sapiens trkB	2.39	1	Cytokine family
AF113682	Homo sapiens clone FLB3436 PRO0868	2.40	4	
AW345891	EST	2.41	8	
Z25531	Bos taurus repeat region DNA	2.41	3	
BP108502	EST	2.43	9	
AW353230	EST	2.45	3	
AW477773	EST	2.49	10	
H27490	EST	2.49	10	
AF195417	Homo sapiens DEAD-box protein abstrakt (ABS)	2.51	2	
BP111076	EST	2.52	7	
AW446540	EST	2.52	9	
NM_006719	Homo sapiens transcript variant ABLIM-m	2.53	1	Cytoskelton
AW466068	EST	2.56	8	
AB043994	Bos taurus MMP-2	2.56	7	ECM & related
AW195100	EST	2.57	2	
BP107329	EST	2.62	4	
AF057300	Homo sapiens truncated RAD50 protein	2.63	3	
AW194656	EST	2.64	2	
AL080102	Homo sapiens clone DKFZp564N1916	2.64	9	
AB028449	Homo sapiens helicase-MOI	2.65	9	DNA binding protein
BP111624	EST	2.67	7	
NM_006838	Homo sapiens methionine methionyl aminopeptidase 2	2.72	4	Enzyme
AW411362	EST	2.75	9	
BP111800	EST	2.76	7	
AA453356	EST	2.79	3	
AT001971	EST	2.79	2	
NM_006491	Homo sapiens NOVA1 transcript variant 3	2.82	1	Oncogene & Tumor inhibitor
NM_004458	Homo sapiens FACLA transcript variant 1	2.84	7	Enzyme
AF000137	Bos taurus connective tissue growth factor precursor (CTGF)	2.85	12	Cytokine family
AW020030	EST	3.06	7	
AW485227	EST	3.15	10	
AW173315	EST	3.40	10	
AW486974	EST	3.58	10	
L34261	Bos taurus palmitoyl-protein thioesterase	4.32	6	Enzyme
BP108345	EST	4.60	7	