

Online Supporting Material

Supplemental Table 2: Genes significantly down-regulated in PrEC cells treated with ZnDF versus ZnAD media for 7 d.

Ratio ¹	Gene Identifier	Gene Name	LocusLink	Gene ID
-2	NM_005538	Inhibin, beta C	3626	INHBC
-2.01	W87901	Small nuclear ribonucleoprotein polypeptide E	6635	SNRPE
-2.02	NM_004166	Chemokine (C-C motif) ligand 15	6359	CCL15
-2.03	NM_013954	NADPH oxidase 1	27035	NOX1
-2.04	NM_017409	Homeobox C10	3226	HOXC10
-2.05	BC005241	MRE11 meiotic recombination 11 homolog A (S. cerevisiae)	4361	MRE11A
-2.07	NM_000257	Myosin, heavy chain 7, cardiac muscle, beta	4625	MYH7
-2.08	AF132811	Immunoglobulin superfamily, member 4	23705	IGSF4
-2.08	NM_005666	Complement factor H-related 2	3080	CFHR2
-2.08	AW163148	Myristoylated alanine-rich protein kinase C substrate	4082	MARCKS
-2.08	NM_000749	Golgi autoantigen, golgin subfamily a, 7	51125	GOLGA7
-2.09	AF015124	Mitogen-activated protein kinase-activated protein kinase 5	8550	MAPKAPK5
-2.13	NM_024947	Polyhomeotic homolog 3 (Drosophila)	80012	PHC3
-2.13	AK024177	Homo sapiens, clone IMAGE:3851018, mRNA	-	-
-2.15	AI345238	tb81b07.x1 NCI_CGAP_Lu26 Homo sapiens cDNA clone IMAGE:2060725 3 similar to gb:M10119 FERRITIN LIGHT CHAIN (HUMAN);, mRNA sequence.	-	-
-2.16	NM_016511	C-type lectin domain family 1, member A	51267	CLEC1A
-2.17	NM_002108	Histidine ammonia-lyase	3034	HAL
-2.18	NM_006914	RAR-related orphan receptor B	6096	RORB
-2.18	AL136823	Bromodomain containing 8	10902	BRD8
-2.19	NM_006581	Fucosyltransferase 9 (alpha (1,3) fucosyltransferase)	10690	FUT9
-2.21	AF061192	Ectodysplasin A	1896	EDA
-2.21	NM_006394	Regulated in glioma	-	-
-2.23	NM_007101	Sarcosine dehydrogenase	1757	SARDH
-2.24	BC005354	Tetraspanin 4	7106	TSPAN4
-2.26	AY029208	Collagen, type VI, alpha 2	1292	COL6A2
-2.26	BC002635	Colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)	1438	CSF2RA
-2.27	AF113008	Ribosomal protein S20	-	-
-2.27	BC005319	Glycophorin A (MNS blood group)	2993	GYPA
-2.28	NM_016831	Period homolog 3 (Drosophila)	8863	PER3
-2.29	NM_000280	Paired box gene 6 (aniridia, keratitis)	5080	PAX6
-2.31	AA102667	zn73e05.s1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:563840 3 similar to contains Alu repetitive element;contains element MSR1 repetitive element ;, mRNA sequence.	-	-

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-2.32	NM_000573	Complement component (3b/4b) receptor 1 (Knops blood group)	1378	CR1
-2.32	AK021640	Serologically defined colon cancer antigen 8	10806	SDCCAG8
-2.33	AJ275469	Homo sapiens partial IGVH3 gene for immunoglobulin heavy chain V region, case 2, cell E 172.	-	-
-2.35	NM_005039	Proline-rich protein BstNI subfamily 1	5542	PRB1
-2.36	NM_017805	Ras interacting protein 1	54922	RASIP1
-2.36	NM_005427	Tumor protein p73	7161	TP73
-2.38	NM_004646	Nephrosis 1, congenital, Finnish type (nephrin)	4868	NPHS1
-2.39	BC001161	Zinc finger protein 174	7727	ZNF174
-2.41	BC000603	Ribosomal protein L38	6169	RPL38
-2.41	H71805	Myeloid cell leukemia sequence 1 (BCL2-related)	4170	MCL1
-2.43	AW188214	Myosin, heavy chain 14	79784	MYH14
-2.43	AI221950	Leucine rich repeat neuronal 3	54674	LRRN3
-2.44	S67788	Adenomatosis polyposis coli	324	APC
-2.44	AL031778	SEE ALSO	-	-
-2.45	NM_002234	Potassium voltage-gated channel, shaker-related subfamily, member 5	3741	KCNA5
-2.48	AA417256	DKFZP564C196 protein	284649	DKFZP564C196
-2.51	AB017445	X-ray repair complementing defective repair in Chinese hamster cells 4	7518	XRCC4
-2.53	NM_016566	Pparl	-	-
-2.53	NM_000873	Intercellular adhesion molecule 2	3384	ICAM2
-2.58	NM_016519	Ameloblastin (enamel matrix protein)	258	AMBN
-2.6	AA320764	Ribosomal protein S10	6204	RPS10
-2.6	U09609	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100) RNA polymerase I transcription factor RRN3-like	4791	NFKB2
-2.6	BC006441	like	94431	LOC94431
-2.61	NM_001939	Dystrophin related protein 2	1821	DRP2
-2.65	NM_005253	FOS-like antigen 2	2355	FOSL2
-2.66	AF070588	Hypothetical protein LOC55565	55565	LOC55565
-2.66	BE877796	Collagen, type VIII, alpha 1	1295	COL8A1
-2.7	NM_022436	ATP-binding cassette, sub-family G (WHITE), member 5 (sterolin 1)	64240	ABCG5
-2.71	NM_024749	Vasohibin 2	79805	VASH2
-2.74	AW134812	Transcribed locus, strongly similar to XP_508943.1 similar to polypeptide N-acetylgalactosaminyltransferase 8; protein-UDP a	-	-
-2.74	U34249	Tripartite motif-containing 15	89870	TRIM15
-2.75	NM_017616	ankyrin repeat domain 25	25959	-
-2.77	NM_004188	Growth factor independent 1B (potential regulator of CDKN1A, translocated in CML)	8328	GFI1B
-2.78	AL117663	Transcription factor 3 (E2A immunoglobulin enhancer binding factors E12/E47)	6929	TCF3
-2.78	AI005043	WAS/WASL interacting protein family, member 1	7456	WIPF1
-2.78	NM_006498	Lectin, galactoside-binding, soluble, 2	3957	LGALS2

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		(galectin 2)		
-2.83	AW303136	Ribosomal protein L38	6169	RPL38
-2.83	NM_024802	Hypothetical protein FLJ21369	-	-
		Coagulation factor C homolog, cochlin		
-2.86	AA669336	(Limulus polyphemus)	1690	COCH
-2.9	AI435828	Stanniocalcin 2	8614	STC2
-2.92	U66584	Crystallin, alpha A	1409	CRYAA
-2.93	AK001727	WW and C2 domain containing 1	23286	WWC1
-2.94	NM_002962	S100 calcium binding protein A5	6276	S100A5
		Killer cell immunoglobulin-like receptor, three		
-2.96	AF262973	domains, long cytoplasmic tail, 1	3811	KIR3DL1
-3.03	NM_003519	Histone cluster 1, H2bl	8340	HIST1H2BL
-3.04	U31216	Glutamate receptor, metabotropic 1	2911	GRM1
-3.06	NM_022159	EGF-TM7-latrophilin-related protein	-	-
-3.12	AK025174	Gasdermin-like	55876	GSDML
-3.12	AI126492	Chromosome 4 open reading frame 9	8602	C4orf9
-3.15	AW408194	Immunoglobulin kappa variable 1D-13	28902	IGKV1D-13
-3.17	NM_030975	Keratin associated protein 9.9	-	-
-3.17	BC005924	Pregnancy specific beta-1-glycoprotein 1	5669	PSG1
-3.18	X60502	Sialophorin (leukosialin, CD43)	6693	SPN
-3.29	NM_006198	Purkinje cell protein 4	5121	PCP4
-3.45	NM_004072	Chemokine-like receptor 1	1240	CMKLR1
-3.46	N25429	High-mobility group 20B	10362	HMG20B
-3.49	NM_005256	Fanconi anemia, complementation group F	2188	FANCF
-3.5	NM_018196	Trimethyllysine hydroxylase, epsilon	55217	TMLHE
-3.51	AL136572	Zinc finger, MIZ-type containing 2	83637	ZMIZ2
-3.51	AL080180	3-hydroxyisobutyrate dehydrogenase	11112	HIBADH
		ATPase, Na ⁺ /K ⁺ transporting, alpha 3		
-3.54	NM_000703	polypeptide	478	-
-3.55	AL049925	Pygopus homolog 1 (Drosophila)	26108	PYGO1
-3.62	D00943	Myosin, heavy chain 7, cardiac muscle, beta	4625	MYH7
-3.63	U18549	G protein-coupled receptor 6	2830	-
		ChaC, cation transport regulator homolog 1		
-3.63	NM_024111	(E. coli)	79094	CHAC1
-3.68	NM_000587	Complement component 7	730	C7
-3.73	D78132	Ras homolog enriched in brain	6009	RHEB
		Transcription factor 3 (E2A immunoglobulin		
-3.77	BE962186	enhancer binding factors E12/E47)	6929	TCF3
-3.79	AI950380	B-cell CLL/lymphoma 7A	605	BCL7A
		Similar to myeloid/lymphoid or mixed-lineage		
-3.81	AB016898	leukemia (trithorax homolog, Drosophila);	653483	LOC653483
		translocated to, 4		
-3.9	N92920	Chromosome 1 open reading frame 77	26097	C1orf77
-3.91	D60132	Glutamate receptor, metabotropic 5	2915	GRM5
-3.93	AB023144	Seizure related 6 homolog (mouse)-like	23544	SEZ6L
-3.99	NM_001739	Carbonic anhydrase VA, mitochondrial	763	CA5A
		Ribosome binding protein 1 homolog 180kDa		
-3.99	BE646396	(dog)	6238	RRBP1
-4.02	NM_000638	Vitronectin	7448	VTN
-4.05	AI191118	Peptidylprolyl isomerase A (cyclophilin A)	5478	PPIA
-4.07	AI200443	Melanoma antigen family A, 10	4109	MAGEA10

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-4.11	NM_022063	Chromosome 10 open reading frame 84	63877	C10orf84
-4.21	NM_022783	DEP domain containing 6	64798	DEPDC6
-4.24	NM_020482	Four and a half LIM domains 5	9457	FHL5
-4.24	NM_001048	Somatostatin	6750	SST
-4.3	NM_021208	chromosome 9 open reading frame 27	58483	-
-4.32	NM_019098	Cyclic nucleotide gated channel beta 3	54714	CNGB3
-4.36	D88214	Myocilin, trabecular meshwork inducible glucocorticoid response	4653	MYOC
-4.37	AF113018	DEAD (Asp-Glu-Ala-Asp) box polypeptide 6	1656	DDX6
-4.38	NM_002309	Leukemia inhibitory factor (cholinergic differentiation factor)	3976	LIF
-4.45	U08092	Histamine N-methyltransferase	3176	HNMT
-4.47	NM_000059	Breast cancer 2, early onset	675	BRCA2
-4.58	L38424		-	-
-4.67	NM_014421	Dickkopf homolog 2 (<i>Xenopus laevis</i>)	27123	DKK2
-4.76	U01134	Fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)	2321	FLT1
-4.78	NM_000590	Interleukin 9	3578	IL9
-4.91	AA521034	Hypothetical protein MGC61571	152100	MGC61571
-4.92	U11701	LIM homeobox 2	9355	-
-4.94	AK026910	Ciliary rootlet coiled-coil, rootletin	9696	CROCC
-5.15	Z25425	NIMA (never in mitosis gene a)-related kinase 2	4751	NEK2
-5.15	NM_016046	Exosome component 1	51013	EXOSC1
-5.35	BE312027	Transcribed locus, weakly similar to XP_370196.1 protein MG06693.4 [Magnaporthe grisea 70-15]	-	-
-5.37	NM_016236	Alanine-glyoxylate aminotransferase (oxalosis I; hyperoxaluria I; glycolicaciduria; serine-pyruvate aminotransferase)	-	-
-5.47	NM_002196	Insulinoma-associated 1	3642	INSM1
-5.57	AK023446	Amino adipate-semialdehyde synthase	10157	AASS
-5.8	BC001279	Microfibrillar-associated protein 3-like	9848	MFAP3L
-5.89	BG403790	602419627F1 NIH_MGC_93 Homo sapiens cDNA clone IMAGE:4526599 5, mRNA sequence.	-	-
-5.9	U76376	Harakiri, BCL2 interacting protein (contains only BH3 domain)	8739	HRK
-5.91	J05158	Carboxypeptidase N, polypeptide 2, 83kD	1370	CPN2
-6.02	D00267	putative; Homo sapiens pseudogene for cytochrome c-like protein, clone pHGC4E1.	-	-
-6.24	BE857772	Ribosomal protein L37a	6168	RPL37A
-6.69	NM_014548	Tropomodulin 2 (neuronal)	29767	TMOD2
-6.86	BC000023	Ribosomal protein S19	6223	RPS19
-7.21	NM_004795	Klotho	9365	KL
-8.2	M69039	Complement component 1, q subcomponent binding protein	-	-
-8.81	AL049037	Syntaphilin	9751	SNPH
-10.83	X89657	Similar to a disintegrin and metalloprotease domain 3 (cyritestin)	651370	LOC651370

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-14.09 BC006370 Inversin 27130 INVS
¹. Ratio calculated as $-1/(ZnDF/ZnAD)$.