

Supplementary Table 1: List of additional genes up-regulated in 16E rat embryonic dorsal skin after 24-h incubation with 1 μ M RA. (Fold change).

Fold	Gene Symbol	Gene Title	Public ID
3.61	Kcnc1	potassium voltage gated channel, Shaw-related subfamily, member 1	NM_012856
3.59	Plcb4	phospholipase C, beta 4	U57836
3.56	Cox11	COX11 cytochrome c oxidase assembly homolog (yeast)	AI071535
	RGD131		
3.47	1251	similar to RIKEN cDNA 4930550C14	BF521886
3.44	Ctsq	cathepsin Q	AI179261
3.44	Gjb6	gap junction protein, beta 6	NM_053388
3.41	Lmod3	leiomodins 3 (fetal)	AI639267
3.39	Adamts9	a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 9	BF416285
3.36	Trpv1	transient receptor potential cation channel, subfamily V, member 1	AB041029
3.36	Fcgbp1	Fc fragment of IgG binding protein-like 1	BI280865
3.30	Smpdl3b	sphingomyelin phosphodiesterase, acid-like 3B	AW251315
3.23	Gpsm3	G-protein signaling modulator 3	BI273727
3.20	Hpse	heparanase	NM_022605
3.19	Htr2a	5-hydroxytryptamine (serotonin) receptor 2A	NM_017254
3.14	Meis2	Meis homeobox 2	BE104098
3.13	Slc25a23	solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 23	AA859663
3.13	Gnb5	guanine nucleotide binding protein (G protein), beta 5	AI603217
	LOC4983		
3.12	68	similar to RIKEN cDNA 0610040J01	BE113616
3.11	Hoxa5	homeo box A5	BE107303
3.07	Th	tyrosine hydroxylase	NM_012740
3.07	Rab15	RAB15, member RAS oncogene family	BM384841
3.03	Clybl	citrate lyase beta like	BG380750
	LOC2592		
3.03	45	alpha-2u globulin PGCL5	AB039826
3.01	Vav2	vav 2 guanine nucleotide exchange factor	BI288992
2.99	Zfp18	zinc finger protein 18	BM392050
2.98	Asz1	ankyrin repeat, SAM and basic leucine zipper domain containing 1	NM_130750
2.97	Kcnma1	potassium large conductance calcium-activated channel, subfamily M, alpha member 1	NM_031828
2.97	Il18bp	interleukin 18 binding protein	NM_053374
2.96	Amelx	amelogenin, X-linked	U51195
2.95	Col2a1	collagen, type II, alpha 1	AF305418

2.91	Mapk13	mitogen activated protein kinase 13	NM_019231
2.91	Mtdh	Metadherin	BE110589
2.90	Fap	fibroblast activation protein, alpha	NM_138850
2.89	Abo	ABO blood group (transferase A, alpha 1-3-N-acetylgalactosaminyltransferase; transferase B, alpha 1-3-galactosyltransferase)	AF296762
2.89	Scube1	Signal peptide, CUB domain, EGF-like 1	AA965236
2.89	Krt7	keratin 7	BI284344
2.87	Slc6a17	solute carrier family 6 (neurotransmitter transporter), member 17	L06434
2.87	F8a1	Coagulation factor VIII-associated 1	AI576484
2.87	Abcc5	ATP-binding cassette, subfamily C (CFTR/MRP), member 5	AW252983
2.86	Sult2a1	Sulfotransferase family 2A, dehydroepiandrosterone (DHEA)-preferring, member 1	NM_133616
2.86	Prl2b1	Prolactin family 2, subfamily b, member 1	AF234635
2.86	Htr1f	5-hydroxytryptamine (serotonin) receptor 1F	NM_021857
2.85	P2rx2	purinergic receptor P2X, ligand-gated ion channel, 2	AF020757
2.84	Tmem22 9b	transmembrane protein 229B	BG667451
2.84	Kcnc2	potassium voltage gated channel, Shaw-related subfamily, member 2	BF400847
2.83	Lipe	lipase, hormone sensitive	NM_012859
2.82	Bhmt	betaine-homocysteine S-methyltransferase	U96133
2.81	Fut9	fucosyltransferase 9 (alpha (1,3) fucosyltransferase)	NM_053465
2.81	Cldn11	claudin 11	BG673439
2.80	Mfsd10	major facilitator superfamily domain containing 10	AA866425
2.79	Rcvm	recoverin	NM_080901
2.79	Trmu	tRNA 5-methylaminomethyl-2-thiouridylate methyltransferase	AI411119
2.78	Mep1b	meprin 1 beta	NM_013183
2.77	Scn1b	sodium channel, voltage-gated, type I, beta	AF182949
2.77	Cst6	cystatin E/M	NM_133566
2.76	Mpeg1	macrophage expressed 1	NM_022617
2.76	Plp1	proteolipid protein 1	NM_030990
2.75	Teddm1	transmembrane epididymal protein 1	AI639391
2.75	RGD131 0686	similar to chromosome 16 open reading frame 5	BG375463
2.75	Calcr	calcitonin receptor	L13041
2.74	Camk2n1	calcium/calmodulin-dependent protein kinase II inhibitor 1	AA858621
2.74	Gjc2	gap junction protein, gamma 2	AI144646
2.73	Eme2	essential meiotic endonuclease 1 homolog 2 (S. pombe)	BE115349
2.73	Adam6	a disintegrin and metallopeptidase domain 6	Y09111
2.73	Prss22	protease, serine, 22	BM389391

2.72	Gucy2f	guanylate cyclase 2F	NM_053831
2.72	Elf3	E74-like factor 3	BI279615
2.71	Rcan2	regulator of calcineurin 2	AI138048
2.71	Dync1li1	dynein cytoplasmic 1 light intermediate chain 1	AF181992
2.69	Calr4	calreticulin 4	BG375382
2.69	Nrxn1	neurexin 1	NM_021767
2.67	Prl8a4	prolactin family 8, subfamily a, member 4	NM_021580
	LOC1003		
2.66	64956	MHC class Ib alpha chain-like	AJ243338
2.65	Adrb1	adrenergic, beta-1-, receptor	NM_012701
2.64	Car1	carbonic anhydrase 1	BM383006
2.63	Gspt2	G1 to S phase transition 2	AW526060
2.63	Ugt2b	UDP glycosyltransferase 2 family, polypeptide B	NM_031533
2.62	Aqp5	aquaporin 5	NM_012779
2.62	Apobec1	apolipoprotein B mRNA editing enzyme, catalytic polypeptide 1	NM_012907
2.61	Ptgis	prostaglandin I2 (prostacyclin) synthase	NM_031557
2.61	Kcnh8	potassium voltage-gated channel, subfamily H (eag-related), member 8	AF061957
2.60	Pip4k2b	phosphatidylinositol-5-phosphate 4-kinase, type II, beta	NM_053550
2.59	Grk4	G protein-coupled receptor kinase 4	AA944254
2.59	Il2ra	interleukin 2 receptor, alpha	NM_013163
2.58	Vom2r40	vomer nasal 2 receptor, 40	AF016180
2.58	Cat	catalase	NM_012520
2.58	Zp2	zona pellucida glycoprotein 2 (sperm receptor)	NM_031150
2.57	Pafah1b1	platelet-activating factor acetylhydrolase, isoform 1b, subunit 1	BG663460
2.56	Vom2r18	vomer nasal 2 receptor, 18	AF016181
2.56	Magi3	membrane associated guanylate kinase, WW and PDZ domain containing 3	AF255614
	LOC1009		
2.56	11507	von Ebner gland protein 2-like	NM_022945
2.55	Ptpre	protein tyrosine phosphatase, receptor type, E	D78610
2.54	Pcif1	PDX1 C-terminal inhibiting factor 1	AI102818
2.53	Cacnb2	calcium channel, voltage-dependent, beta 2 subunit	AF394941
	LOC1009		
2.51	11651	uncharacterized LOC100911651	AA819481
2.51	Fgf6	fibroblast growth factor 6	NM_131908
2.51	Star	steroidogenic acute regulatory protein	AB006007
2.50	Defb1	defensin beta 1	AF068860
2.50	Camk2b	calcium/calmodulin-dependent protein kinase II beta	NM_021739
2.50	Mfrp	membrane frizzled-related protein	BG374415

2.49	Exoc8	exocyst complex component 8	AF032669
2.49	Tspan8	tetraspanin 8	NM_133526
2.47	Crygb	crystallin, gamma B	BG371900
2.46	Capn6	calpain 6	NM_031808
2.45	Cdh16	cadherin 16	AI411500
2.45	Clcn2	chloride channel 2	NM_017137
2.45	Dnajb5	DnaJ (Hsp40) homolog, subfamily B, member 5	BM386741
2.45	Gjb2	gap junction protein, beta 2	AI179953
2.45	Ppm1b	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1B	AI501282
2.45	Cldn3	claudin 3	NM_031700
2.45	Cnr2	cannabinoid receptor 2 (macrophage)	NM_020543
2.45	Scarf2	Scavenger receptor class F, member 2	AW253950
2.45	Kcnk6	potassium channel, subfamily K, member 6	NM_053806
2.44	Fbxo25	F-box protein 25	BF419881
2.43	Apba2	amyloid beta (A4) precursor protein-binding, family A, member 2	NM_031780
2.42	Ctla2a	cytotoxic T lymphocyte-associated protein 2 alpha	AI230591
	Tmem17		
2.41	6b	transmembrane protein 176B	NM_134390
	RGD156		
2.41	3533	Similar to novel protein	BE110547
	LOC6870		
2.41	35	similar to Tripartite motif protein 56	BI291361
2.41	Cgnl1	cingulin-like 1	AI008974
2.40	Bmp6	bone morphogenetic protein 6	AW141680
	LOC1003		
2.40	59967	rCG31761-like	BI299014
2.39	Ncoa5	nuclear receptor coactivator 5	AI009170
2.39	Mcpt2	mast cell protease 2	AA957923
	Ceacam1		
2.38	1	carcinoembryonic antigen-related cell adhesion molecule 11	BI284359
2.38	Abca3	ATP-binding cassette, subfamily A (ABC1), member 3	BE096678
2.37	Anxa1	annexin A1	NM_012904
2.37	Ptpkr	protein tyrosine phosphatase, receptor type, K, extracellular region	NM_020085
2.37	Higd1b	HIG1 hypoxia inducible domain family, member 1B	AI576009
2.37	Mical2	Microtubule associated monooxygenase, calponin and LIM domain containing 2	AI059216
2.37	Zmynd17	zinc finger, MYND-type containing 17	AI236615
2.37	Trim63	tripartite motif-containing 63	NM_080903
2.36	Akip1	A kinase (PRKA) interacting protein 1	AA799992

2.36	Adra2b	adrenergic, alpha-2B-, receptor	M32061
2.35	Tpm1	tropomyosin 1, alpha	M23764
2.35	Jund	jun D proto-oncogene	BE096021
2.34	Gdf10	growth differentiation factor 10	NM_024375
2.34	Pop1	processing of precursor 1, ribonuclease P/MRP subunit (<i>S. cerevisiae</i>)	BM389467
2.34	Cd248	CD248 molecule, endosialin	AW252815
2.34	Ogn	osteoglycin	BG664221
2.34	Krt19	keratin 19	BI279605
2.33	Chma3	cholinergic receptor, nicotinic, alpha 3	NM_052805
2.33	Rmt1	mammary cancer associated protein RMT-1	AF308611
2.33	RT1-CE5	RT1 class I, locus CE5	AJ243338
2.32	Alad	aminolevulinate dehydratase	NM_012899
2.32	Fndc1	fibronectin type III domain containing 1	AI411941
2.32	Fam84b	family with sequence similarity 84, member B	AA957367
2.31	Nup210	nucleoporin 210	NM_053322
2.30	Ncf1	neutrophil cytosolic factor 1	NM_053734
2.29	Slc35a1	Solute carrier family 35 (CMP-sialic acid transporter), member A1	AI228537
2.29	Plbd1	phospholipase B domain containing 1	BI285951
2.29	Fam63b	family with sequence similarity 63, member B	AI045965
2.29	Eln	elastin	J04035
2.28	Cyp2d1	cytochrome P450, family 2, subfamily d, polypeptide 1	M25143
2.27	Asah2	N-acylsphingosine amidohydrolase (non-lysosomal ceramidase) 2	NM_053646
2.27	Tspy1	testis specific protein, Y-linked 1	AF074880
2.26	Gca	grancalcin	BF394809
2.26	Krt4	keratin 4	BI274589
2.26	Kcna6	potassium voltage gated channel, shaker related subfamily, member 6	AJ276137
2.26	Lsamp	limbic system-associated membrane protein	U31554
2.26	Ppcdc	phosphopantothenoylcysteine decarboxylase	AI411422
2.26	Vtcn1	V-set domain containing T cell activation inhibitor 1	AI639163
2.25	Fstl3	folliculin-like 3 (secreted glycoprotein)	NM_053629
2.25	Pgr	progesterone receptor	NM_022847
2.25	Dpys	dihydropyrimidinase	NM_031705
2.25	Fblim1	filamin binding LIM protein 1	AA875261
2.24	Cyp2b3	cytochrome P450, family 2, subfamily b, polypeptide 3	M20406
2.24	Abhd12	abhydrolase domain containing 12	BI284608
2.24	Ncr1	natural cytotoxicity triggering receptor 1	NM_057199
2.24	Arhgef7	Rho guanine nucleotide exchange factor (GEF) 7	BF414089
2.23	Lrrc51	leucine rich repeat containing 51	BF546013

2.23	Akap12	A kinase (PRKA) anchor protein 12	BG663107
2.23	Wdr24	WD repeat domain 24	BF284753
2.22	Bai1	brain-specific angiogenesis inhibitor 1	AI145685
2.22	RGD156 6399	Similar to MYST histone acetyltransferase monocytic leukemia 4	AW534476
2.22	Pdcl3	phosducin-like 3	AI236359
2.21	Il4ra	interleukin 4 receptor, alpha	NM_133380
2.21	Trim11	tripartite motif-containing 11	BF393562
2.20	Myl7	myosin, light chain 7, regulatory	AA891242
2.20	Prpg1	proline-rich proteoglycan 1	L17317
2.20	Hrh3	histamine receptor H3	AY009371
2.20	Tcp11	t-complex protein 11	BF410059
2.20	Sfrp4	secreted frizzled-related protein 4	AF140346
2.20	Drp2	dystrophin related protein 2	AF195789
2.20	Ltbp1	latent transforming growth factor beta binding protein 1	NM_021587
2.20	Vash2	Vasohibin 2	AW434257
2.20	Reck	reversion-inducing-cysteine-rich protein with kazal motifs	AW523759
2.19	Fancf	Fanconi anemia, complementation group F	AI555848
2.19	Pcdh8	protocadherin 8	NM_022868
2.18	Csrp2	cysteine and glycine-rich protein 2	U44948
2.18	Lyve1	lymphatic vessel endothelial hyaluronan receptor 1	BE116084
2.18	Kcnc3	potassium voltage gated channel, Shaw-related subfamily, member 3	NM_053997
2.18	Zfp498	zinc finger protein 498	BE104397
2.17	Myo18b	myosin XVIIIb	AW252664
2.16	Sult1d1	sulfotransferase family 1D, member 1	NM_021769
2.16	Prl7a4	prolactin family 7, subfamily a, member 4	AI179972
2.16	Fam129a	family with sequence similarity 129, member A	NM_022242
2.16	Hrh1	histamine receptor H 1	AF387884
2.15	Gmcl1	germ cell-less homolog 1 (Drosophila)	AI548252
2.15	Semg1	semenogelin I	NM_012710
2.15	Rcn1	Reticulocalbin 1, EF-hand calcium binding domain	AI175752
2.15	Dlgap3	Discs, large (Drosophila) homolog-associated protein 3	AI144891
2.15	Nog	noggin	BF403302
2.15	LOC1003 61007	rCG32064-like	BF387347
2.14	G4	G4 protein	BE117326
2.14	LOC1009 09537	IQ domain-containing protein K-like	BI291351

2.14	Unc13c	unc-13 homolog C (C. elegans)	U75361
2.14	Art2	ADP-ribosyltransferase 2	M85193
2.13	Chn2	chimerin (chimaerin) 2	NM_032084
2.13	Sst	somatostatin	NM_012659
2.12	Zdhhc13	zinc finger, DHHC-type containing 13	BG379973
2.12	Crabp2	cellular retinoic acid binding protein 2	U23407
2.12	Rwdd3	RWD domain containing 3	AI711028
2.12	Aifm2	apoptosis-inducing factor, mitochondrion-associated 2	AA894233
2.11	Milr1	mast cell immunoglobulin-like receptor 1	NM_021585
2.11	Tinagl1	tubulointerstitial nephritis antigen-like 1	NM_053582
2.11	Fga	fibrinogen alpha chain	AI072045
2.11	Slc15a2	solute carrier family 15 (H ⁺ /peptide transporter), member 2	NM_031672
2.11	Scn11a	sodium channel, voltage-gated, type XI, alpha subunit	NM_019265
	LOC1009		
2.10	10885	apolipoprotein L3-like	BI289459
2.10	Vegp1	von Ebners gland protein 1	NM_022945
2.10	Cyct	cytochrome c, testis	NM_012840
2.10	Gpr20	G protein-coupled receptor 20	NM_022216
2.10	Akr1c1	aldo-keto reductase family 1, member C1	AI072107
2.10	Zfp668	zinc finger protein 668	AW433743
2.10	Camk2n2	calcium/calmodulin-dependent protein kinase II inhibitor 2	NM_021678
2.10	Tnp1	transition protein 1	NM_017056
2.09	Cpz	carboxypeptidase Z	NM_031766
2.09	Snap29	synaptosomal-associated protein 29	AF035822
2.09	Tgfb3	transforming growth factor, beta 3	NM_013174
2.09	P2rx1	purinergic receptor P2X, ligand-gated ion channel, 1	AF231010
2.09	Nim1	serine/threonine-protein kinase NIM1	BG375383
2.09	Mcpt3	mast cell peptidase 3	U67888
2.08	Sptbn1	spectrin, beta, non-erythrocytic 1	AJ242018
2.08	Gls2	glutaminase 2 (liver, mitochondrial)	J05499
2.08	Shmt1	serine hydroxymethyltransferase 1 (soluble)	AI412012
2.08	Mgat4a	mannosyl (alpha-1,3-)-glycoprotein beta-1,4-N-acetylglucosaminyltransferase	BE096535
2.07	Camk2a	calcium/calmodulin-dependent protein kinase II alpha	BM384558
2.07	Cacna1e	calcium channel, voltage-dependent, R type, alpha 1E subunit	AY029412
2.07	Gabrp	gamma-aminobutyric acid (GABA-A) receptor, pi	NM_031029
2.06	Fabp9	fatty acid binding protein 9, testis	NM_022854
2.06	Mx2	myxovirus (influenza virus) resistance 2	NM_017028
2.06	Per3	period homolog 3 (Drosophila)	AF311875

2.06	Lrrc4b	Leucine rich repeat containing 4B	AI602719
2.06	Pld2	phospholipase D2	NM_033299
2.05	Igf1	insulin-like growth factor 1	M15481
2.05	Cd79b	Cd79b molecule, immunoglobulin-associated beta	NM_133533
2.04	Tdo2	tryptophan 2,3-dioxygenase	NM_022403
2.04	Zfp787	Zinc finger protein 787	BF414325
2.04	Cfh	complement factor H	NM_130409
2.03	Sulf2	sulfatase 2	AA963797
2.03	Olr1	oxidized low density lipoprotein (lectin-like) receptor 1	NM_133306
2.02	Gstt1	glutathione S-transferase theta 1	BM390378
2.02	Rev3l	REV3-like, catalytic subunit of DNA polymerase zeta (yeast)	BI281607
2.02	RT1-A3	RT1 class I, locus A3	AJ005023
	LOC3011		
2.01	26	similar to scaffold attachment factor B2	BI282944
	LOC1003		
2.01	62894	Hypothetical protein LOC100362894	AW532796
2.01	Cacna1d	calcium channel, voltage-dependent, L type, alpha 1D subunit	AF370009
2.01	Tnfsf11	tumor necrosis factor (ligand) superfamily, member 11	NM_057149
2.01	Gjd2	gap junction protein, delta 2	NM_019281
	RGD156		
2.00	3556	similar to mKIAA1377 protein	BI291246
	RGD131		
2.00	0773	similar to hypothetical protein FLJ31810	BE097267
2.00	Grin1	glutamate receptor, ionotropic, N-methyl D-aspartate 1	BF394115
2.00	Npr1	natriuretic peptide receptor A/guanylate cyclase A	NM_012613
2.00	Mip	major intrinsic protein of lens fiber	BG374588