Table W1. Primers Used for Real-Time q-PCR.

Name	Sequence	Accession No.	T_m	Product Size (bp)
BCAR_UP1	CCAGGTTCCCAGGACATCTA	NM_012931.1	59.92	
BCAR_LP1	TGCTCACAGAAGGAGGAACA	NM_012931.1	59.55	214
CEBPD_UP1	CAGGAGATGCAGCAGAAGC	NM_013154.1	59.83	
CEBPD_LP1	GTATCGGTCGTTCGGAGTCT	NM_013154.1	59.17	198
Gpx3_UP1	ACCAATTTGGCAAACAGGAG	NM_022525.2	59.97	
Gpx3_LP1	TCAAAGAGCTGGAAATTAGGC	NM_022525.2	59.18	110
Hoxa1_UP2	TTCTCCAGCGCAGACCTT	NM_013075.1	59.66	
Hoxa1_LP2	CCCACGTAGCCATACTCTCC	NM_013075.1	59.57	84
KLRB1_UP1	TGGATAAACGGCTCGACTTT	NM_173292.1	59.71	
KLRB1_LP1	GCACTTTGTCCTGTGAGACG	NM_173292.1	59.47	94
MAFB_UP2	AACGCGTCCAGCAGAAACAT	NM_019316.1	59	
MAFB_LP2	CTGCTCCACCTGCTGAATGA	NM_019316.1	59	65
Nxph3_UP1	CTGCTGCTTCGTGTTCCTAGT	NM_021679.1	52.38	
Nxph3_LP1	CATCATGCTCAGGGTCCTC	NM_021679.1	57.89	95
PLAU_UP1	AGCTGCCCAAAGAAATTCAA	NM_013085.2	59.82	
PLAU_LP1	TGGTGTCAGTATTGGCCTTTC	NM_013085.2	59.99	106
SMAD7_UP1	AGAGGCTGTGTTGCTGTGAA	NM_030858.1	59.62	
SMAD7_LP1	GAGGAAGGTACAGCGTCTGG	NM_030858.1	59.87	172
SRC_UP1	TGTGGAGCGGATGAACTATG	NM_031977.1	59.67	
SRC_LP1	TGATGGTGAACCTGCCATAC	NM_031977.1	59.37	197
Thra_T1_UP1	ACAAGGCCACCGGTTATCAC	NM_001017960.1	58	
Thra_T1_LP1	GCGAAAGAAGCCCTTGCA	NM_001017960.1	59	62
TP53_UP1	ACGTGCTCACACTGGCTAAA	NM_030989.1	59.51	
TP53_LP1	GGAGCTCGATGCTCATATCC	NM_030989.1	59.76	189

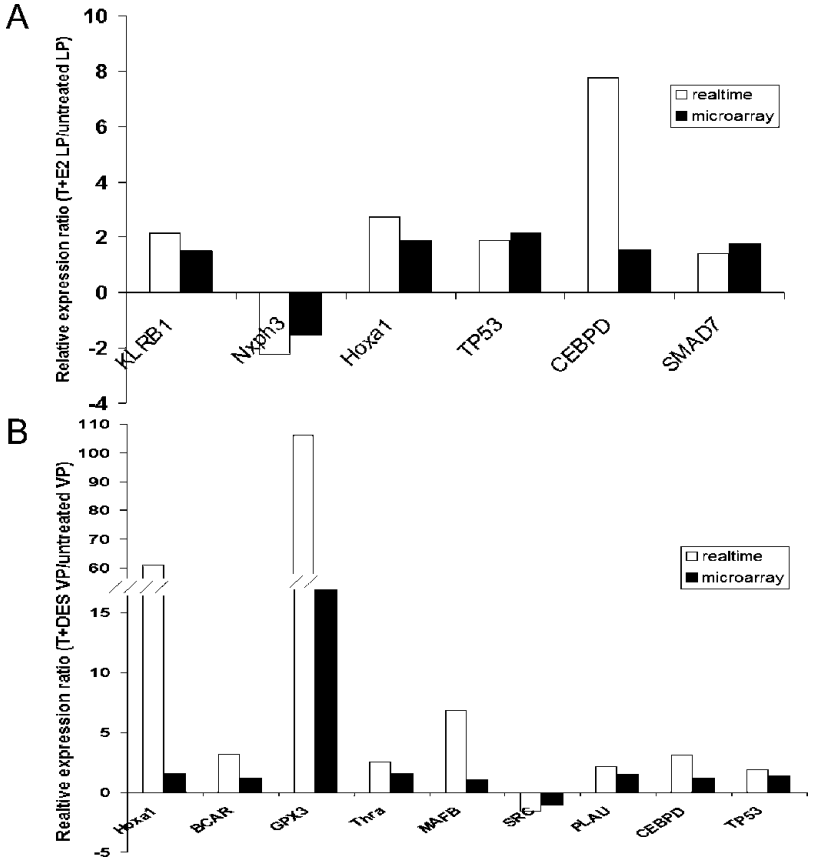

Figure W1. Comparison of real-time q-PCR to microarray findings. Genes selected from (A) T + E_2–induced LP dysplasia and (B) T + DES–induced VP dysplasia panels.

Table W2. Genes Whose Expression Altered following T + E_2 in the VPs with No Dysplastic Changes.

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + E_2 VP *vs* VP	T + E_2 VP *vs* VP	T + E_2 VP *vs* VP
Cell morphology					
contactin-associated protein 1	84008	*CNTNAP1*	2.33	.0125	0.739395415
Cell to cell signaling and interaction					
contactin-associated protein 1	84008	*CNTNAP1*	2.33	.0125	0.739395415
Cellular growth and proliferation					
potassium voltage–gated channel, shaker-related subfamily, member 5	25470	*KCNA5*	−1.83	.0227	0.766365976
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415
Molecular transport					
potassium voltage–gated channel, shaker-related subfamily, member 5	25470	*KCNA5*	−1.83	.0227	0.766365976
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415
Carbohydrate metabolism					
lysozyme	25211	*LYZ*	−1.55	.1027	0.916873843
Cellular assembly and organization					
potassium voltage–gated channel, shaker-related subfamily, member 5	25470	*KCNA5*	−1.83	.0227	0.766365976
mucin 5, subtypes A and C, tracheobronchial/gastric	65188	*MUC5AC*	1.70	.0134	0.739395415
Small molecule biochemistry					
ornithine decarboxylase antizyme inhibitor	58961	*AZIN1*	1.51	.0801	0.886144389
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415
lysozyme	25211	*LYZ*	−1.55	.1027	0.916873843
Cell death					
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415
SH3-domain kinase binding protein 1	84357	*SH3KBP1*	−1.56	.0011	0.443416906
Cellular function and maintenance					
potassium voltage–gated channel, shaker-related subfamily, member 5	25470	*KCNA5*	−1.83	.0227	0.766365976
mucin 5, subtypes A and C, tracheobronchial/gastric	65188	*MUC5AC*	1.70	.0134	0.739395415
Cell signaling					
major histocompatibility complex, class II, DM beta	294273	*HLA-DMB*	1.51	.0185	0.739395415
Drug metabolism					
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415
Lipid metabolism					
solute carrier family 12, member 2	83629	*SLC12A2*	1.57	.0142	0.739395415

We propose that these genes were not related to dysplasia development.
Genes were categorized according to their cellular functions (in bold and italics).

Table W3. Genes that Showed Altered Levels of Expression following T + DES in the LPs with No Dysplastic Changes.

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
Cell morphology					
actin alpha cardiac 1	29275	*ACTC1*	2.30	.0000	0.000248913
actinin alpha 4	63836	*ACTN4*	−1.62	.0004	0.015327409
adducin 2 (beta)	24171	*ADD2*	−1.50	.0023	0.046831092
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
allograft inflammatory factor 1	29427	*AIF1*	−1.58	.0001	0.007642386
alanyl (membrane) aminopeptidase	81641	*ANPEP*	1.23	.0662	0.309192141
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
discs, large homolog 4 (*Drosophila*)	29495	*DLG4*	1.28	.0138	0.12501336
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
espin	56227	*ESPN*	−1.65	.0004	0.015327409
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
gap junction membrane channel protein alpha 3	79217	*GJA3*	−1.67	.0003	0.013918065
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
potassium inwardly rectifying channel, subfamily J, member 10	29718	*KCNJ10*	1.57	.0002	0.011445829
NK6 transcription factor–related, locus 1 (*Drosophila*)	65193	*NKX6-1*	−1.31	.0144	0.128278942
protein kinase C and casein kinase substrate in neurons 2	124461	*PACSIN2*	1.27	.0261	0.187905149
p21 (CDKN1A)–activated kinase1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
synuclein, gamma	64347	*SNCG*	−1.83	.0014	0.034901656
Arg/Abl–interacting protein Arg BP2	114901	*SORBS2*	1.20	.0883	0.361834544
transition protein 2	24840	*TNP2*	−1.46	.0025	0.048139684
ubiquitin A-52 residue ribosomal protein fusion product 1	64156	*UBA52*	−1.94	.0001	0.004893344
ubiquitin-conjugating enzyme E2I	25573	*UBE2I*	1.53	.0001	0.008104491
vesicle docking protein	56042	*VDP*	−1.33	.0114	0.114843401
Cellular movement					
actin, beta	81822	*ACTB*	−1.34	.0132	0.121186877
actinin alpha 4	63836	*ACTN4*	−1.62	.0004	0.015327409
a disintegrin and metallopeptidase domain 1a	56777	*ADAM1A*	−1.69	.0007	0.023296301
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
alanyl (membrane) aminopeptidase	81641	*ANPEP*	1.23	.0662	0.309192141
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
calponin 1	65204	*CNN1*	−1.04	.7878	0.930382649
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
chemokine orphan receptor 1	84348	*CXCR7*	−1.57	.0008	0.025012801
discoidin domain receptor family, member 1	25678	*DDR1*	−1.75	.0000	0.002145778
defensin beta 1	83687	*DEFB1*	−1.15	.1095	0.409029443
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
coagulation factor X	29243	*F10*	−1.80	.0004	0.016178933
proprotein convertase subtilisin/kexin type 3	54281	*FURIN*	−1.46	.0026	0.048296067
guanine nucleotide binding protein, alpha z subunit	25740	*GNAZ*	1.46	.0041	0.060465974
glycogen synthase kinase 3 alpha	50686	*GSK3A*	−1.27	.0048	0.066546045
guanylate cyclase 1, soluble, alpha 3	25201	*GUCY1A3*	2.07	.0000	0.000248913
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
mucosal vascular addressin cell adhesion molecule 1	54266	*MADCAM1*	−1.53	.0051	0.068231134
metastasis-associated 1	64520	*MTA1*	−1.40	.0225	0.172625732
NK6 transcription factor–related, locus 1 (*Drosophila*)	65193	*NKX6-1*	−1.31	.0144	0.128278942
nuclear receptor subfamily 4, group A, member 3	58853	*NR4A3*	−1.51	.0383	0.23317558
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
polymeric immunoglobulin receptor	25046	*PIGR*	−1.35	.0066	0.080018243
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
phospholipase C, beta 3	29322	*PLCB3*	−1.54	.0020	0.043467607
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
slit homolog 3 (*Drosophila*)	83467	*SLIT3*	1.51	.0005	0.017227903
synuclein, gamma	64347	*SNCG*	−1.83	.0014	0.034901656
ventral anterior homeobox 1	64571	*VAX1*	−1.52	.0001	0.007642386
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
Cell signaling					
adrenergic receptor, alpha 2c	24175	*ADRA2C*	−1.35	.0729	0.3262758
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
calcineurin binding protein 1	94165	*CABIN1*	1.47	.0000	0.004028913
calcium channel, voltage-dependent, T type, alpha 1 G subunit	29717	*CACNA1G*	−1.50	.0002	0.011161422
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
gamma-aminobutyric acid A receptor, rho 1	29694	*GABRR1*	1.87	.0000	0.000345513
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
guanine nucleotide binding protein, beta 3	60449	*GNB3*	1.68	.0000	0.002364708
glutamate receptor, ionotropic, kainate 3	298521	*GRIK3*	2.06	.0000	2.51e−06
G protein–coupled receptor 24	83567	*MCHR1*	−1.52	.0002	0.00962618
protein kinase C and casein kinase substrate in neurons 2	124461	*PACSIN2*	1.27	.0261	0.187905149
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
fertility protein SP22	117287	*PARK7*	−1.22	.2198	0.566510451
phosphodiesterase 4A	25638	*PDE4A*	−1.55	.0011	0.030023803
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
Arg/Abl–interacting protein Arg BP2	114901	*SORBS2*	1.20	.0883	0.361834544
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656
Cellular growth and proliferation					
allograft inflammatory factor 1	29427	*AIF1*	−1.58	.0001	0.007642386
calcium channel, voltage-dependent, T type, alpha 1 G subunit	29717	*CACNA1G*	−1.50	.0002	0.011161422
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
CD63 antigen	29186	*CD63*	−1.10	.4195	0.737185743
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
Cbp/p300–interacting transactivator with Glu/Asp–rich carboxy-terminal domain 1	64466	*CITED1*	−1.53	.0019	0.042644963
calponin 1	65204	*CNN1*	−1.04	.7878	0.930382649
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
chemokine orphan receptor 1	84348	*CXCR7*	−1.57	.0008	0.025012801
discoidin domain receptor family, member 1	25678	*DDR1*	−1.75	.0000	0.002145778
ddx5 gene	287765	*DDX5*	−1.27	.1781	0.520336467
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
F-box only protein 2	85273	*FBXO2*	−1.42	.0115	0.114843401
growth hormone–releasing hormone receptor	25321	*GHRHR*	−1.59	.0255	0.186284598
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
metastasis-associated 1	64520	*MTA1*	−1.40	.0225	0.172625732
nuclear receptor subfamily 4, group A, member 3	58853	*NR4A3*	−1.51	.0383	0.23317558
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
polymeric immunoglobulin receptor	25046	*PIGR*	−1.35	.0066	0.080018243
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
synuclein, gamma	64347	*SNCG*	−1.83	.0014	0.034901656
ventral anterior homeobox 1	64571	*VAX1*	−1.52	.0001	0.007642386
zinc finger protein of the cerebellum 1	64618	*ZIC1*	−1.54	.0002	0.00960067
Cell to cell signaling and interaction					
a disintegrin and metallopeptidase domain 1a	56777	*ADAM1A*	−1.69	.0007	0.023296301
adrenergic receptor, alpha 2c	24175	*ADRA2C*	−1.35	.0729	0.3262758
amelogenin X chromosome	29160	*AMELX*	−1.71	.0000	0.000345513
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
discoidin domain receptor family, member 1	25678	*DDR1*	−1.75	.0000	0.002145778
discs, large homolog 4 (*Drosophila*)	29495	*DLG4*	1.28	.0138	0.12501336
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
coagulation factor X	29243	*F10*	−1.80	.0004	0.016178933
fibrinogen, gamma polypeptide	24367	*FGG*	−1.79	.0067	0.080887122
proprotein convertase subtilisin/kexin type 3	54281	*FURIN*	−1.46	.0026	0.048296067
gap junction membrane channel protein alpha 3	79217	*GJA3*	−1.67	.0003	0.013918065
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
mucosal vascular addressin cell adhesion molecule 1	54266	*MADCAM1*	−1.53	.0051	0.068231134
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
polymeric immunoglobulin receptor	25046	*PIGR*	−1.35	.0066	0.080018243

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
proteasome (prosome, macropain) 28 subunit, beta	29614	*PSME2*	1.40	.0008	0.025480573
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
Rhesus blood group CE and D	60414	*RHD*	−1.45	.0030	0.050810807
ubiquitin A-52 residue ribosomal protein fusion product 1	64156	*UBA52*	−1.94	.0001	0.004893344
ubiquitin-conjugating enzyme E2I	25573	*UBE2I*	1.53	.0001	0.008104491
ventral anterior homeobox 1	64571	*VAX1*	−1.52	.0001	0.007642386
Cellular function and maintenance					
blocked early in transport 1 homolog (*S. cerevisiae*) like	54400	*BET1L*	−1.31	.0707	0.321228605
calcineurin binding protein 1	94165	*CABIN1*	1.47	.0000	0.004028913
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
fibrinogen, gamma polypeptide	24367	*FGG*	−1.79	.0067	0.080887122
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
protein kinase C and casein kinase substrate in neurons 2	124461	*PACSIN2*	1.27	.0261	0.187905149
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
ubiquitin-conjugating enzyme E2I	25573	*UBE2I*	1.53	.0001	0.008104491
vesicle docking protein	56042	*VDP*	−1.33	.0114	0.114843401
Cellular assembly and organization					
actin, beta	81822	*ACTB*	−1.34	.0132	0.121186877
actin alpha cardiac 1	29275	*ACTC1*	2.30	.0000	0.000248913
actinin alpha 4	63836	*ACTN4*	−1.62	.0004	0.015327409
a disintegrin and metallopeptidase domain 1a	56777	*ADAM1A*	−1.69	.0007	0.023296301
ADP-ribosylation factor 1	64310	*ARF1*	−1.51	.0042	0.06161559
blocked early in transport 1 homolog (*S. cerevisiae*) like	54400	*BET1L*	−1.31	.0707	0.321228605
calcineurin binding protein 1	94165	*CABIN1*	1.47	.0000	0.004028913
calpain 3	29155	*CAPN3*	−1.06	.6514	0.868611888
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
discs, large homolog 4 (*Drosophila*)	29495	*DLG4*	1.28	.0138	0.12501336
phenylalkylamine Ca^{2+} antagonist (emopamil) binding protein	117278	*EBP*	−1.24	.1023	0.394501794
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
espin	56227	*ESPN*	−1.65	.0004	0.015327409
fibrinogen, gamma polypeptide	24367	*FGG*	−1.79	.0067	0.080887122
protein kinase C and casein kinase substrate in neurons 2	124461	*PACSIN2*	1.27	.0261	0.187905149
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
Rhesus blood group CE and D	60414	*RHD*	−1.45	.0030	0.050810807
Arg/Abl–interacting protein Arg BP2	114901	*SORBS2*	1.20	.0883	0.361834544
transition protein 2	24840	*TNP2*	−1.46	.0025	0.048139684
ubiquitin-conjugating enzyme E2I	25573	*UBE2I*	1.53	.0001	0.008104491
ventral anterior homeobox 1	64571	*VAX1*	−1.52	.0001	0.007642386
vesicle docking protein	56042	*VDP*	−1.33	.0114	0.114843401
Cellular development					
adducin 2 (beta)	24171	*ADD2*	−1.50	.0023	0.046831092
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
allograft inflammatory factor 1	29427	*AIF1*	−1.58	.0001	0.007642386
alanyl (membrane) aminopeptidase	81641	*ANPEP*	1.23	.0662	0.309192141
calcitonin/calcitonin–related polypeptide, alpha	24241	*CALCA*	1.57	.0002	0.00960067
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
discoidin domain receptor family, member 1	25678	*DDR1*	−1.75	.0000	0.002145778
phenylalkylamine Ca^{2+} antagonist (emopamil) binding protein	117278	*EBP*	−1.24	.1023	0.394501794
endothelial differentiation, lysophosphatidic acid G-protein–coupled receptor, 2	116744	*EDG2*	1.50	.0006	0.020782669
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
eukaryotic translation initiation factor 2B, subunit 4 delta	117019	*EIF2B4*	−1.32	.0626	0.302985912

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
potassium inwardly rectifying channel, subfamily J, member 10	29718	*KCNJ10*	1.57	.0002	0.011445829
neurogenic differentiation 2	54276	*NEUROD2*	−1.47	.0457	0.259241663
NK6 transcription factor–related, locus 1 (*Drosophila*)	65193	*NKX6-1*	−1.31	.0144	0.128278942
nuclear receptor subfamily 4, group A, member 3	58853	*NR4A3*	−1.51	.0383	0.23317558
platelet-activating factor acetylhydrolase, isoform 1b, alpha1 subunit	114113	*PAFAH1B3*	−1.59	.0007	0.021362381
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
SNF-related kinase	170837	*SNRK*	−1.68	.0002	0.01079459
zinc finger protein of the cerebellum 1	64618	*ZIC1*	−1.54	.0002	0.00960067
Vitamin and mineral metabolism					
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
calcium channel, voltage-dependent, T type, alpha 1 G subunit	29717	*CACNA1G*	−1.50	.0002	0.011161422
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656
gamma-glutamyl hydrolase	25455	*GGH*	1.05	.6924	0.88871634
Nucleic acid metabolism					
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
G protein–coupled receptor 24	83567	*MCHR1*	−1.52	.0002	0.00962618
phosphodiesterase 4A	25638	*PDE4A*	−1.55	.0011	0.030023803
heat shock 10 kDa protein 1	25462	*HSPE1*	−1.53	.0302	0.202134203
Cell cycle					
allograft inflammatory factor 1	29427	*AIF1*	−1.58	.0001	0.007642386
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
aspartyl-tRNA synthetase	116483	*DARS*	−1.43	.0353	0.221986221
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
nuclear receptor subfamily 4, group A, member 3	58853	*NR4A3*	−1.51	.0383	0.23317558
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656
Cell death					
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
NK6 transcription factor–related, locus 1 (*Drosophila*)	65193	*NKX6-1*	−1.31	.0144	0.128278942
ornithine decarboxylase antizyme 1	25502	*OAZ1*	−1.61	.0040	0.059747718
prolyl 4-hydroxylase, beta polypeptide	25506	*P4HB*	−1.29	.0491	0.266073897
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
Cellular compromise					
adducin 2 (beta)	24171	*ADD2*	−1.50	.0023	0.046831092
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
calponin 1	65204	*CNN1*	−1.04	.7878	0.930382649
cytotoxic T-lymphocyte–associated protein 4	63835	*CTLA4*	1.25	.0618	0.301897804
ephrin A1	94268	*EFNA1*	−1.33	.0595	0.29465518
G-protein–coupled receptor 37	117549	*GPR37*	−1.24	.0689	0.316311201
heat shock 10 kDa protein 1	25462	*HSPE1*	−1.53	.0302	0.202134203
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
potassium inwardly rectifying channel, subfamily J, member 10	29718	*KCNJ10*	1.57	.0002	0.011445829
mucosal vascular addressin cell adhesion molecule 1	54266	*MADCAM1*	−1.53	.0051	0.068231134
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
synuclein, gamma	64347	*SNCG*	−1.83	.0014	0.034901656
Arg/Abl–interacting protein Arg BP2	114901	*SORBS2*	1.20	.0883	0.361834544
Gene expression					
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
Cbp/p300–interacting transactivator with Glu/Asp–rich carboxy-terminal domain 1	64466	*CITED1*	−1.53	.0019	0.042644963
ddx5 gene	287765	*DDX5*	−1.27	.1781	0.520336467
glucocorticoid modulatory element binding protein 2	83635	*GMEB2*	1.44	.0013	0.033527564
hairy and enhancer of split 2 (*Drosophila*)	29567	*HES2*	−1.66	.0001	0.008055371
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
interleukin enhancer binding factor 3	84472	*ILF3*	−1.45	.0041	0.060465974
neurogenic differentiation 2	54276	*NEUROD2*	−1.47	.0457	0.259241663
nuclear factor I/C	29228	*NFIC*	−1.54	.0000	0.001390745
nuclear receptor subfamily 3, group C, member 2	25672	*NR3C2*	1.57	.0025	0.048296067
nuclear receptor subfamily 4, group A, member 3	58853	*NR4A3*	−1.51	.0383	0.23317558
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 6	25509	*PAX6*	−1.72	.0000	0.001014633
paired box gene 8	81819	*PAX8*	−1.50	.0027	0.049209986
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
retinoic acid receptor, alpha	24705	*RARA*	−1.45	.0003	0.0125346
retinoblastoma binding protein 7	83712	*RBBP7*	−1.15	.2769	0.626562643
suppression of tumorigenicity 18	266680	*ST18*	1.16	.3190	0.656804744
telomerase-associated protein 1	64523	*TEP1*	−1.53	.0024	0.047008762
ubiquitin A-52 residue ribosomal protein fusion product 1	64156	*UBA52*	−1.94	.0001	0.004893344
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656
Amino acid metabolism					
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
glycine cleavage system protein H (aminomethyl carrier)	171133	*GCSH*	−1.43	.0131	0.120934801
gamma-glutamyl hydrolase	25455	*GGH*	1.05	.6924	0.88871634
glycogen synthase kinase 3 alpha	50686	*GSK3A*	−1.27	.0048	0.066546045
prolyl 4-hydroxylase, beta polypeptide	25506	*P4HB*	−1.29	.0491	0.266073897
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
paired box gene 8	81819	*PAX8*	−1.50	.0027	0.049209986
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
Post–translational modification					
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
glycine cleavage system protein H (aminomethyl carrier)	171133	*GCSH*	−1.43	.0131	0.120934801
glycogen synthase kinase 3 alpha	50686	*GSK3A*	−1.27	.0048	0.066546045
prolyl 4-hydroxylase, beta polypeptide	25506	*P4HB*	−1.29	.0491	0.266073897
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
Carbohydrate metabolism					
apolipoprotein A-V	140638	*APOA5*	−1.43	.0022	0.045371928
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
guanine nucleotide binding protein, alpha z subunit	25740	*GNAZ*	1.46	.0041	0.060465974
neuromedin B receptor	25264	*NMBR*	1.66	.0005	0.017227903
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
Cellular response to therapeutics					
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
DNA replication, recombination, and repair					
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
Drug metabolism					
apolipoprotein A-V	140638	*APOA5*	−1.43	.0022	0.045371928
phenylalkylamine Ca^{2+} antagonist (emopamil) binding protein	117278	*EBP*	−1.24	.1023	0.394501794
gamma-glutamyl hydrolase	25455	*GGH*	1.05	.6924	0.88871634
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
insulin-like 6	50546	*IL1RAP*	1.56	.0002	0.01079459
fertility protein SP22	117287	*PARK7*	−1.22	.2198	0.566510451
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
Energy production					
heat shock 10 kDa protein 1	25462	*HSPE1*	−1.53	.0302	0.202134203
Pyruvate carboxylase	25104	*PC*	−1.68	.0005	0.017227903
Lipid metabolism					
adrenergic receptor, alpha 2c	24175	*ADRA2C*	−1.35	.0729	0.3262758
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
apolipoprotein A-V	140638	*APOA5*	−1.43	.0022	0.045371928
apolipoprotein C-I	25292	*APOC1*	−1.45	.0040	0.060048723
ADP-ribosylation factor 1	64310	*ARF1*	−1.51	.0042	0.06161559
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
cytochrome *P*450, 4a12	266674	*CYP4A22*	1.29	.0127	0.118852704
phenylalkylamine Ca^{2+} antagonist (emopamil) binding protein	117278	*EBP*	−1.24	.1023	0.394501794
coagulation factor X	29243	*F10*	−1.80	.0004	0.016178933
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
growth hormone–releasing hormone receptor	25321	*GHRHR*	−1.59	.0255	0.186284598
CCA2 protein	246211	*HSD3B7*	−1.14	.2909	0.639015905
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
platelet-activating factor acetylhydrolase, isoform 1b, alpha1 subunit	114113	*PAFAH1B3*	−1.59	.0007	0.021362381
phosphatidylinositol-4-phosphate 5-kinase, type II, alpha	116723	*PIP5K2A*	−1.54	.0028	0.050001834
Molecular transport					
adducin 2 (beta)	24171	*ADD2*	−1.50	.0023	0.046831092
apolipoprotein A-V	140638	*APOA5*	−1.43	.0022	0.045371928
apolipoprotein C-I	25292	*APOC1*	−1.45	.0040	0.060048723
ADP-ribosylation factor 1	64310	*ARF1*	−1.51	.0042	0.06161559
ADP-ribosylation factor 3	140940	*ARF3*	−1.73	.0015	0.035552435
ATPase, H^+ transporting, V1 subunit F	116664	*ATP6V1F*	1.82	.0000	0.002117528
calcium channel, voltage-dependent, T type, alpha 1 G subunit	29717	*CACNA1G*	−1.50	.0002	0.011161422
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
gamma-glutamyl hydrolase	25455	*GGH*	1.05	.6924	0.88871634
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
guanine nucleotide binding protein, alpha z subunit	25740	*GNAZ*	1.46	.0041	0.060465974
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
potassium voltage–gated channel, Shaw-related subfamily, member 1	25327	*KCNC1*	1.88	.0000	0.001278795
potassium voltage–gated channel, Shaw-related subfamily, member 3	117101	*KCNC3*	1.28	.0499	0.267188376
potassium inwardly rectifying channel, subfamily J, member 10	29718	*KCNJ10*	1.57	.0002	0.011445829
potassium large conductance calcium–activated channel, subfamily M, beta member 1	29747	*KCNMB1*	1.45	.0016	0.037292397
G protein–coupled receptor 24	83567	*MCHR1*	−1.52	.0002	0.00962618
neuromedin B receptor	25264	*NMBR*	1.66	.0005	0.017227903
nuclear receptor subfamily 3, group C, member 2	25672	*NR3C2*	1.57	.0025	0.048296067
ornithine decarboxylase antizyme 1	25502	*OAZ1*	−1.61	.0040	0.059747718
fertility protein SP22	117287	*PARK7*	−1.22	.2198	0.566510451
paired box gene 8	81819	*PAX8*	−1.50	.0027	0.049209986
phosphodiesterase 4A	25638	*PDE4A*	−1.55	.0011	0.030023803
phosphatidylinositol-4-phosphate 5-kinase, type II, alpha	116723	*PIP5K2A*	−1.54	.0028	0.050001834
phospholipase C, beta 3	29322	*PLCB3*	−1.54	.0020	0.043467607
transmembrane 4 superfamily member 11	64364	*PLLP*	−1.89	.0001	0.007928851
RAB10, member RAS oncogene family	50993	*RAB10*	−1.26	.1155	0.421950743
vesicle docking protein	56042	*VDP*	−1.33	.0114	0.114843401
protein kinase, lysine-deficient 1	116477	*WNK1*	−1.23	.0401	0.239581758
tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	29753	*YWHAE*	−1.54	.0014	0.034901656
Protein degradation					
alanyl (membrane) aminopeptidase	81641	*ANPEP*	1.23	.0662	0.309192141
calpain 3	29155	*CAPN3*	−1.06	.6514	0.868611888
F-box only protein 2	85273	*FBXO2*	−1.42	.0115	0.114843401
proprotein convertase subtilisin/kexin type 3	54281	*FURIN*	−1.46	.0026	0.048296067
ubiquitin A-52 residue ribosomal protein fusion product 1	64156	*UBA52*	−1.94	.0001	0.004893344
Protein synthesis					
ubiquitin A-52 residue ribosomal protein fusion product 1	64156	*UBA52*	−1.94	.0001	0.004893344
alanyl (membrane) aminopeptidase	81641	*ANPEP*	1.23	.0662	0.309192141
proprotein convertase subtilisin/kexin type 3	54281	*FURIN*	−1.46	.0026	0.048296067
F-box only protein 2	85273	*FBXO2*	−1.42	.0115	0.114843401
calpain 3	29155	*CAPN3*	−1.06	.6514	0.868611888
eukaryotic translation initiation factor 2B, subunit 4 delta	117019	*EIF2B4*	−1.32	.0626	0.302985912
aspartyl-tRNA synthetase	116483	*DARS*	−1.43	.0353	0.221986221
ribosomal protein L41	124440	*RPL41*	1.11	.5675	0.833181167
ribosomal protein S27	94266	*RPS27*	−1.90	.0001	0.00504934
ribosomal protein L22	81768	*RPL22*	−1.28	.1257	0.438278138
ribosomal protein L24	64307	*RPL24*	−1.21	.2217	0.567754925
ribosomal protein L4	64302	*RPL4*	−1.42	.0425	0.248528309
Protein trafficking					
ADP-ribosylation factor 1	64310	*ARF1*	−1.51	.0042	0.06161559
cofilin 1	29271	*CFL1*	−1.39	.0163	0.137582819
vesicle docking protein	56042	*VDP*	−1.33	.0114	0.114843401
ADP-ribosylation factor 3	140940	*ARF3*	−1.73	.0015	0.035552435
RAB10, member RAS oncogene family	50993	*RAB10*	−1.26	.1155	0.421950743

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
protein tyrosine phosphatase, receptor type, F	360406	*PTPRF*	−1.44	.0029	0.050810807
RNA damage and repair					
telomerase-associated protein 1	64523	*TEP1*	−1.53	.0024	0.047008762
RNA post–transcriptional modification					
telomerase-associated protein 1	64523	*TEP1*	−1.53	.0024	0.047008762
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
Small molecule biochemistry					
glycine cleavage system protein H (aminomethyl carrier)	171133	*GCSH*	−1.43	.0131	0.120934801
neuromedin B receptor	25264	*NMBR*	1.66	.0005	0.017227903
guanine nucleotide binding protein, alpha z subunit	25740	*GNAZ*	1.46	.0041	0.060465974
nuclear receptor subfamily 3, group C, member 2	25672	*NR3C2*	1.57	.0025	0.048296067
apolipoprotein C-I	25292	*APOC1*	−1.45	.0040	0.060048723
apolipoprotein A-V	140638	*APOA5*	−1.43	.0022	0.045371928
platelet-activating factor acetylhydrolase, isoform 1b, alpha1 subunit	114113	*PAFAH1B3*	−1.59	.0007	0.021362381
prion protein	24686	*PRNP*	−1.33	.1183	0.42614185
ornithine decarboxylase antizyme 1	25502	*OAZ1*	−1.61	.0040	0.059747718
phosphatidylinositol-4-phosphate 5-kinase, type II, alpha	116723	*PIP5K2A*	−1.54	.0028	0.050001834
CCA2 protein	246211	*HSD3B7*	−1.14	.2909	0.639015905
interleukin 5	24497	*IL5*	−1.52	.0526	0.275768333
aspartyl-tRNA synthetase	116483	*DARS*	−1.43	.0353	0.221986221
adrenergic receptor, alpha 2c	24175	*ADRA2C*	−1.35	.0729	0.3262758
cytochrome *P*450, 4a12	266674	*CYP4A22*	1.29	.0127	0.118852704
coagulation factor X	29243	*F10*	−1.80	.0004	0.016178933
heat shock 10 kDa protein 1	25462	*HSPE1*	−1.53	.0302	0.202134203
paired box gene 8	81819	*PAX8*	−1.50	.0027	0.049209986
phospholipase C, beta 3	29322	*PLCB3*	−1.54	.0020	0.043467607
CCAAT/enhancer binding protein (C/EBP), alpha	24252	*CEBPA*	−1.53	.0095	0.101978652
gamma-glutamyl hydrolase	25455	*GGH*	1.05	.6924	0.88871634
prolyl 4-hydroxylase, beta polypeptide	25506	*P4HB*	−1.29	.0491	0.266073897
fertility protein SP22	117287	*PARK7*	−1.22	.2198	0.566510451
phenylalkylamine Ca^{2+} antagonist (emopamil) binding protein	117278	*EBP*	−1.24	.1023	0.394501794
ADP-ribosylation factor 1	64310	*ARF1*	−1.51	.0042	0.06161559
acetylcholinesterase	83817	*ACHE*	−1.61	.0009	0.026111212
adrenergic receptor kinase, beta 1	25238	*ADRBK1*	−1.33	.0048	0.067126523
small inducible cytokine A4	116637	*CCL4*	1.50	.0017	0.038035447
growth hormone–releasing hormone	29446	*GHRH*	1.87	.0000	0.000562125
glycogen synthase kinase 3 alpha	50686	*GSK3A*	−1.27	.0048	0.066546045
insulin-like 6	50546	*IL1RAP*	1.56	.0002	0.01079459
G protein–coupled receptor 24	83567	*MCHR1*	−1.52	.0002	0.00962618
p21 (CDKN1A)–activated kinase 1	29431	*PAK1*	1.99	.0000	0.001151782
phosphodiesterase 4A	25638	*PDE4A*	−1.55	.0011	0.030023803
protein kinase N1	29355	*PKN1*	1.51	.0001	0.005817694
sulfotransferase family, cytosolic, 1C, member 2	171072	*SULT1C2*	1.40	.0066	0.080018243
Others/unclassified					
acetylcholinesterase	83817	*ACHE*	−1.61	.0009	0.026111212
A kinase (PRKA) anchor protein 14	60332	*AKAP14*	1.75	.0000	0.000345513
ADP-ribosylation factor 5	79117	*ARF5*	1.18	.1270	0.441864518
ATP synthase, H^+ transporting, mitochondrial F_1 complex, O subunit	192241	*ATP5O*	−1.21	.1429	0.469959614
barrier to autointegration factor 1	114087	*BANF1*	1.94	.0000	0.000627148
complement component 1, q subcomponent, beta polypeptide	29687	*C1QB*	1.33	.0055	0.071144019
calcium channel, voltage-dependent, alpha 1I subunit	56827	*CACNA1I*	−1.49	.0013	0.033306477
calcitonin/calcitonin–related polypeptide, alpha	24241	*CALCA*	1.57	.0002	0.00960067
steroid-sensitive gene 1	64387	*CCDC80*	−1.68	.0010	0.027773162
caudal type homeobox 1	171042	*CDX1(includesEG:171042)*	−1.38	.0779	0.339542448
chloride channel Kb	79430	*CLCNKB*	1.34	.0202	0.162131033
cytochrome *c* oxidase subunit IV isoform 1	29445	*COX4I1*	2.01	.0000	0.000345513
cleavage and polyadenylation–specific factor 4	252943	*CPSF4*	−1.47	.0363	0.225382474
upstream of NRAS	117180	*CSDE1*	−1.48	.0027	0.049042265
casein kinase 1, alpha 1	113927	*CSNK1A1*	−1.48	.0010	0.027890942
chondroitin sulfate proteoglycan 5	50568	*CSPG5*	1.42	.0130	0.12061056
cytochrome *P*450, family 2, subfamily c, polypeptide 7	29298	*CYP2C9*	1.52	.0030	0.050810807
dipeptidase 1 (renal)	94199	*DPEP1*	−1.15	.2356	0.588068112
putative pheromone receptor Go-VN13C	286986	*EG665255*	−1.30	.0159	0.136403128
carboxylesterase 1	29225	*ES22*	−1.53	.0138	0.12501336
Ena-vasodilator–stimulated phosphoprotein	79115	*EVL*	−1.48	.0006	0.020979393
Fas apoptotic inhibitory molecule 2	246274	*FAIM2*	1.74	.0000	0.000313065
gap junction membrane channel protein beta 4	117055	*GJB4*	−1.62	.0026	0.048592575
galectin-related interfiber protein	117130	*GRIFIN*	−1.14	.1826	0.525238789

Table W3. (*continued*)

Gene Names	Locus ID	Symbol	Fold Changes	*P*	FDR
			T + DES LP *vs* LP	T + DES LP *vs* LP	T + DES LP *vs* LP
general transcription factor IIa 2	83828	*GTF2A2*	−1.52	.0018	0.040904546
3-hydroxyisobutyrate dehydrogenase	63938	*HIBADH*	−1.63	.0092	0.099998918
neural visinin–like Ca^{2+}–binding protein type 3	50871	*HPCAL1*	−1.39	.0014	0.034901656
hydroxy-delta-5-steroid dehydrogenase, 3 beta-andosteroid delta-isomerase 1	29632	*HSD3B2(includesEG:3284)*	1.59	.0132	0.121186877
interferon, alpha-inducible protein 27–like	170512	*IFI27*	−1.33	.0082	0.092474595
potassium voltage–gated channel, shaker-related subfamily, beta member 1	29737	*KCNAB1*	−1.47	.0009	0.026111212
potassium channel, subfamily K, member 9	84429	*KCNK9*	2.54	.0000	3.18e−05
preoptic regulatory factor-2	286903	*KIAA1688*	−1.86	.0000	0.001310057
epididymal retinoic acid–binding protein	29552	*LCN5*	−1.33	.1328	0.451496546
leptin receptor overlapping transcript	56766	*LEPROT*	1.23	.0800	0.344030409
Alpha-1,6-mannosyl-glycoprotein2-beta-*N*-acetylglucosaminyltransferase	94273	*MGAT2*	−1.49	.0003	0.013861053
membrane protein, palmitoylated 2 (MAGUK p55 subfamily member 2)	85275	*MPP2*	−1.54	.0013	0.033527564
membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3)	114202	*MPP3*	−1.78	.0000	0.00238426
myosin ID	25485	*MYO1D*	−1.86	.0000	0.002259596
myosin IE	25484	*MYO1E*	−1.49	.0045	0.063968949
N-acetyltransferase 8 (camello-like)	64570	*NAT8*	1.60	.0005	0.018001605
nuclear factor I/X	81524	*NFIX*	−1.40	.0020	0.043375551
phosphodiesterase 4C, cAMP-specific	290646	*PDE4C*	−1.56	.0015	0.035439407
phosphofructokinase, muscle	65152	*PFKM*	1.41	.0036	0.05720289
phospholipase C, delta 4	140693	*PLCD4*	1.06	.5888	0.839859691
pregnancy upregulated nonubiquitously expressed CaM kinase	29660	*PNCK*	1.82	.0000	0.004388703
protein phosphatase 1, regulatory subunit 10	65045	*PPP1R10*	−1.45	.0110	0.112064665
protein phosphatase 3, catalytic subunit, beta isoform	24675	*PPP3CB*	−1.05	.6773	0.882757484
prolactin-like protein L	171556	*PRLPL*	1.11	.3118	0.65353078
PR-Vbeta1	498341	*PR-Vbeta1*	2.20	.0000	3.18e−05
Carcinoembryonic antigen gene family (CGM3)	24256	*PSG18*	1.61	.0001	0.00831627
quinoid dihydropteridine reductase	64192	*QDPR*	−1.70	.0343	0.218922533
rabaptin 5	54190	*RABEP1*	−1.46	.0204	0.162411357
RASD family, member 2	171099	*RASD2*	1.13	.2983	0.645268138
Ras association (RalGDS/AF-6) domain family 5	54355	*RASSF5*	1.15	.1864	0.528802493
ribosomal protein L10A	81729	*RPL10A(includesEG:81729)*	−1.40	.0364	0.225382474
ribosomal protein L27	64306	*RPL27*	−1.33	.0245	0.181311206
ribosomal protein L28	64638	*RPL28*	−1.65	.0005	0.019279688
ribosomal protein L29	29283	*RPL29(includesEG:29283)*	−1.66	.0011	0.029296571
ribosomal protein S12	65139	*RPS12*	1.55	.0012	0.0316706
ribosomal protein S15	29285	*RPS15*	−1.37	.0212	0.16563314
ribosomal protein S21	81775	*RPS21*	−1.04	.7860	0.92990797
ribosomal protein S27a	81777	*RPS27A*	1.09	.5567	0.826186782
ribosomal protein S9	81772	*RPS9*	1.46	.0018	0.039884914
spondin 1	64456	*SPON1*	1.46	.0006	0.021028906
sulfotransferase family 4A, member 1	58953	*SULT4A1*	−1.45	.0008	0.025012801
synaptogyrin 2	89815	*SYNGR2*	−1.47	.0016	0.038035447
tachykinin receptor 2	25007	*TACR2*	1.27	.0327	0.212543742
testis-enhanced gene transcript	24822	*TEGT*	−1.63	.0004	0.015893027
translocase of inner mitochondrial membrane 22 homolog (yeast)	79463	*TIMM22*	−1.48	.0054	0.07023214
transmembrane protein with EGF-like and two follistatin-like domains 1	63845	*TMEFF1*	−1.85	.0059	0.075505805
translocase of outerm itochondrial membrane 20 homolog (yeast)	266601	*TOMM20*	1.18	.1323	0.451237424
vesicle-associated membrane protein 2	24803	*VAMP2*	2.23	.0000	0.002259596
zinc finger protein 111	170849	*ZNF227*	−1.69	.0006	0.019354079

We propose that these genes was unlikely to be related to dysplasia induction.
Genes were categorized according to their cellular functions (in bold and italics).

Table W4. T + E_2–Insensitive Panel: Genes that Showed No Significant Changes in Their Expression Levels in the LPs or/and VPs following T + E_2 Treatment Relative to Their Respective Untreated Controls.

Gene Names	Locus ID	Symbol
Cellular movement		
arrestin, beta 2	25388	*ARRB2*
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
interleukin 7	25647	*IL7*
chemokine (C–C motif) ligand 3	25542	*CCL3*
neuropilin 2	81527	*NRP2*
midkine	81517	*MDK*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
peptide YY (mapped)	287730	*PYY*
cyclin-dependent kinase 5	140908	*CDK5*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
calcium and integrin binding 1 (calmyrin)	81823	*CIB1*
neogenin	81735	*NEO1*
mitogen-activated protein kinase 14	81649	*MAPK14*
activated leukocyte cell adhesion molecule	79559	*ALCAM*
matrix metalloproteinase 16	65205	*MMP16*
complexin 1	64832	*CPLX1*
rhoB gene	64373	*RHOB*
legumain	63865	*LGMN*
matrix metallopeptidase 8	63849	*MMP8*
cd86 antigen	56822	*CD86*
lectin, galactose binding, soluble 1	56646	*LGALS1*
neuroblastoma, suppression of tumorigenicity 1	50594	*NBL1*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
collagen, type 1, alpha 1	29393	*COL1A1*
calpain, small subunit 1	29156	*CAPNS1*
neurofibromatosis 2	25744	*NF2*
synaptotagmin 3	25731	*SYT3*
integrin beta 4	25724	*ITGB4*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
peptidylprolyl isomerase A	25518	*PPIA*
paired box gene 6	25509	*PAX6*
intercellular adhesion molecule 1	25464	*ICAM1*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
arrestin, beta 1	25387	*ARRB1*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
CD24 antigen	25145	*CD24*
tropomyosin 4	24852	*TPM4*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
insulin-like growth factor 1	24482	*IGF1*
Cell death		
arrestin, beta 2	25388	*ARRB2*
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
interleukin 7	25647	*IL7*
chemokine (C–C motif) ligand 3	25542	*CCL3*
midkine	81517	*MDK*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
peptide YY (mapped)	287730	*PYY*
cyclin-dependent kinase 5	140908	*CDK5*
calcium and integrin binding 1 (calmyrin)	81823	*CIB1*
mitogen-activated protein kinase 14	81649	*MAPK14*
rhoB gene	64373	*RHOB*
matrix metallopeptidase 8	63849	*MMP8*
cd86 antigen	56822	*CD86*
lectin, galactose binding, soluble 1	56646	*LGALS1*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
calpain, small subunit 1	29156	*CAPNS1*
neurofibromatosis 2	25744	*NF2*
integrin beta 4	25724	*ITGB4*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
peptidylprolyl isomerase A	25518	*PPIA*
paired box gene 6	25509	*PAX6*
intercellular adhesion molecule 1	25464	*ICAM1*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
CD24 antigen	25145	*CD24*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
insulin-like growth factor 1	24482	*IGF1*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*
structure-specific recognition protein 1	81785	*SSRP1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
calcitonin receptor	116506	*CALCR*
epithelial membrane protein 3	81505	*EMP3*
persephin	25525	*PSPN*
HLA-B–associated transcript 3	94342	*BAT3*
cyclin-dependent kinase 2	362817	*CDK2*
cell division cycle 25 homolog A (*S. cerevisiae*)	171102	*CDC25A*
protein tyrosine phosphatase, nonreceptor type 23	117552	*PTPN23*
peroxiredoxin 1	117254	*PRDX1*
thyroid hormone receptor interactor 10	116717	*TRIP10*
A kinase (PRKA) anchor protein 1	114124	*AKAP1*
calbindin 1	83839	*CALB1*
wild-type p53–induced gene 1	64394	*ZMAT3*
unc-5 homolog A (*C. elegans*)	60629	*UNC5A*
transglutaminase 1	60335	*TGM1*
mitogen-activated protein kinase 13	29513	*MAPK13*
glutathione *S*-transferase, pi 2	29438	*GSTP1*
fatty acid amide hydrolase	29347	*FAAH*
prothymosin alpha	29222	*PTMA*
stannin	29140	*SNN*
monoamine oxidase B	25750	*MAOB*
prostaglandin D_2 synthase	25526	*PTGDS*
glypican 3	25236	*GPC3*
cytochrome *P*450, family 2, subfamily e, polypeptide 1	25086	*CYP2E1*
ATPase, Cu^{2+} transporting, beta polypeptide	24218	*ATP7B*
Cell cycle		
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
interleukin 7	25647	*IL7*
chemokine (C–C motif) ligand 3	25542	*CCL3*
midkine	81517	*MDK*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
mitogen-activated protein kinase 14	81649	*MAPK14*
rhoB gene	64373	*RHOB*
lectin, galactose binding, soluble 1	56646	*LGALS1*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
neurofibromatosis 2	25744	*NF2*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
paired box gene 6	25509	*PAX6*
insulin-like growth factor 1	24482	*IGF1*
structure-specific recognition protein 1	81785	*SSRP1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
calcitonin receptor	116506	*CALCR*
cyclin-dependent kinase 2	362817	*CDK2*
cell division cycle 25 homolog A (*S. cerevisiae*)	171102	*CDC25A*
prothymosin alpha	29222	*PTMA*
collagen, type 1, alpha 1	29393	*COL1A1*
arrestin, beta 1	25387	*ARRB1*
high mobility group box transcription factor 1	27080	*HBP1*
septin 9	83788	*SEPT9*
Cell morphology		
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
chemokine (C–C motif) ligand 3	25542	*CCL3*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
mitogen-activated protein kinase 14	81649	*MAPK14*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
rhoB gene	64373	*RHOB*
lectin, galactose binding, soluble 1	56646	*LGALS1*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
paired box gene 6	25509	*PAX6*
insulin-like growth factor 1	24482	*IGF1*
cyclin-dependent kinase 2	362817	*CDK2*
cell division cycle 25 homolog A (*S. cerevisiae*)	171102	*CDC25A*
collagen, type 1, alpha 1	29393	*COL1A1*
high mobility group box transcription factor 1	27080	*HBP1*
arrestin, beta 2	25388	*ARRB2*
cyclin-dependent kinase 5	140908	*CDK5*
calcium and integrin binding 1 (calmyrin)	81823	*CIB1*
integrin beta 4	25724	*ITGB4*
intercellular adhesion molecule 1	25464	*ICAM1*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
CD24 antigen	25145	*CD24*
protein tyrosine phosphatase, nonreceptor type 23	117552	*PTPN23*
peroxiredoxin 1	117254	*PRDX1*
calbindin 1	83839	*CALB1*
mitogen-activated protein kinase 13	29513	*MAPK13*
prostaglandin D_2 synthase	25526	*PTGDS*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
RAS protein–specific guanine nucleotide–releasing factor 1	192213	*RASGRF1*
procollagen, type I, alpha 2	84352	*COL1A2*
ERM-binding phosphoprotein	59114	*SLC9A3R1*
clathrin, heavy polypeptide (Hc)	54241	*CLTC*
Cellular growth and proliferation		
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
chemokine (C–C motif) ligand 3	25542	*CCL3*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
mitogen-activated protein kinase 14	81649	*MAPK14*
rhoB gene	64373	*RHOB*
lectin, galactose binding, soluble 1	56646	*LGALS1*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
paired box gene 6	25509	*PAX6*
insulin-like growth factor 1	24482	*IGF1*
cyclin-dependent kinase 2	362817	*CDK2*
cell division cycle 25 homolog A (*S. cerevisiae*)	171102	*CDC25A*
collagen, type 1, alpha 1	29393	*COL1A1*
arrestin, beta 2	25388	*ARRB2*
cyclin-dependent kinase 5	140908	*CDK5*
integrin beta 4	25724	*ITGB4*
intercellular adhesion molecule 1	25464	*ICAM1*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
CD24 antigen	25145	*CD24*
peroxiredoxin 1	117254	*PRDX1*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
RAS protein–specific guanine nucleotide–releasing factor 1	192213	*RASGRF1*
ERM-binding phosphoprotein	59114	*SLC9A3R1*
clathrin, heavy polypeptide (Hc)	54241	*CLTC*
signal transducer and activator of transcription 5A	24918	*STAT5A*
midkine	81517	*MDK*
neurofibromatosis 2	25744	*NF2*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
calcitonin receptor	116506	*CALCR*
prothymosin alpha	29222	*PTMA*
peptide YY (mapped)	287730	*PYY*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
cd86 antigen	56822	*CD86*
calpain, small subunit 1	29156	*CAPNS1*
peptidylprolyl isomerase A	25518	*PPIA*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*
epithelial membrane protein 3	81505	*EMP3*
wild-type p53–induced gene 1	64394	*ZMAT3*
glutathione *S*-transferase, pi 2	29438	*GSTP1*
glypican 3	25236	*GPC3*
neogenin	81735	*NEO1*
legumain	63865	*LGMN*
beta-microseminoprotein	29311	*MSMB*
solute carrier family 7 (cationic amino acid transporter, y+ system), member 7	83509	*SLC7A7*
nuclear factor I/X	81524	*NFIX*
insulin-induced gene 1	64194	*INSIG1*
FXYD domain–containing ion transport regulator 1	58971	*FXYD1*
fibroblast growth factor 17	29368	*FGF17*
solute carrier family 4, member 1	24779	*SLC4A1*
Molecular transport		
chemokine (C–C motif) ligand 3	25542	*CCL3*
phosphatase and tensin homolog	50557	*PTEN*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
insulin-like growth factor 1	24482	*IGF1*
arrestin, beta 2	25388	*ARRB2*
intercellular adhesion molecule 1	25464	*ICAM1*
peroxiredoxin 1	117254	*PRDX1*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
ERM-binding phosphoprotein	59114	*SLC9A3R1*
signal transducer and activator of transcription 5A	24918	*STAT5A*
calcitonin receptor	116506	*CALCR*
peptidylprolyl isomerase A	25518	*PPIA*
insulin-induced gene 1	64194	*INSIG1*
solute carrier family 4, member 1	24779	*SLC4A1*
calbindin 1	83839	*CALB1*
arrestin, beta 1	25387	*ARRB1*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
A kinase (PRKA) anchor protein 1	114124	*AKAP1*
cytochrome *P*450, family 2, subfamily e, polypeptide 1	25086	*CYP2E1*
ATPase, Cu^{2+} transporting, beta polypeptide	24218	*ATP7B*
carbonic anhydrase 2	54231	*CA2*
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
potassium inwardly rectifying channel, subfamily J, member 11	83535	*KCNJ11*
solute carrier family 30 (zinc transporter), member 2	25362	*SLC30A2*
sodium channel, nonvoltage-gated, type I, alpha polypeptide	25122	*SCNN1A*
potassium voltage–gated channel, Shab-related subfamily, member 2	117105	*KCNB2*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
transient receptor potential cation channel, subfamily C, member 2	64573	*TRPC2*
hyperpolarization-activated, cyclic nucleotide–gated K^+ 4	59266	*HCN4*
solute carrier family 14 (urea transporter), member 1	54301	*SLC14A1*
potassium intermediate/small conductance calcium–activated channel, subfamily N, member 3	54263	*KCNN3*
solute carrier family 6 (neurotransmitter transporter, betaine/GABA), member 12	50676	*SLC6A12*
potassium inwardly rectifying channel, subfamily J, member 3	50599	*KCNJ3*
DNA replication, recombination, and repair		
phosphatase and tensin homolog	50557	*PTEN*
insulin-like growth factor 1	24482	*IGF1*
arrestin, beta 2	25388	*ARRB2*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
arrestin, beta 1	25387	*ARRB1*
cyclin-dependent kinase 2	362817	*CDK2*
cell division cycle 25 homolog A (*S. cerevisiae*)	171102	*CDC25A*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
Cellular assembly and organization		
phosphatase and tensin homolog	50557	*PTEN*
insulin-like growth factor 1	24482	*IGF1*
cyclin-dependent kinase 2	362817	*CDK2*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
intercellular adhesion molecule 1	25464	*ICAM1*
A kinase (PRKA) anchor protein 1	114124	*AKAP1*
mitogen-activated protein kinase 14	81649	*MAPK14*
rhoB gene	64373	*RHOB*
cyclin-dependent kinase 5	140908	*CDK5*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
CD24 antigen	25145	*CD24*
peptide YY (mapped)	287730	*PYY*
thyroid hormone receptor interactor 10	116717	*TRIP10*
complexin 1	64832	*CPLX1*
synaptotagmin 3	25731	*SYT3*
LIM motif–containing protein kinase 2	29524	*LIMK2*
coronin, actin-binding protein, 1B	29474	*CORO1B*
synapsin III	29130	*SYN3*
Cell signaling		
insulin-like growth factor 1	24482	*IGF1*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
intercellular adhesion molecule 1	25464	*ICAM1*
A kinase (PRKA) anchor protein 1	114124	*AKAP1*
cyclin-dependent kinase 5	140908	*CDK5*
arrestin, beta 2	25388	*ARRB2*
arrestin, beta 1	25387	*ARRB1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
ERM-binding phosphoprotein	59114	*SLC9A3R1*
calcitonin receptor	116506	*CALCR*
peptidylprolyl isomerase A	25518	*PPIA*
calbindin 1	83839	*CALB1*
potassium inwardly rectifying channel, subfamily J, member 11	83535	*KCNJ11*
transient receptor potential cation channel, subfamily C, member 2	64573	*TRPC2*
homeodomain interacting protein kinase 3	83617	*HIPK3*
Nucleic acid metabolism		
insulin-like growth factor 1	24482	*IGF1*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
intercellular adhesion molecule 1	25464	*ICAM1*
arrestin, beta 2	25388	*ARRB2*
arrestin, beta 1	25387	*ARRB1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
calcitonin receptor	116506	*CALCR*
Small molecule biochemistry		
insulin-like growth factor 1	24482	*IGF1*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
intercellular adhesion molecule 1	25464	*ICAM1*
arrestin, beta 2	25388	*ARRB2*
arrestin, beta 1	25387	*ARRB1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
calcitonin receptor	116506	*CALCR*
cyclin-dependent kinase 5	140908	*CDK5*
homeodomain interacting protein kinase 3	83617	*HIPK3*
phosphatase and tensin homolog	50557	*PTEN*
cyclin-dependent kinase 2	362817	*CDK2*
mitogen-activated protein kinase 14	81649	*MAPK14*
LIM motif–containing protein kinase 2	29524	*LIMK2*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
peroxiredoxin 1	117254	*PRDX1*
signal transducer and activator of transcription 5A	24918	*STAT5A*
insulin-induced gene 1	64194	*INSIG1*
solute carrier family 4, member 1	24779	*SLC4A1*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
ATPase, Cu^{2+} transporting, beta polypeptide	24218	*ATP7B*
carbonic anhydrase 2	54231	*CA2*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
solute carrier family 6 (neurotransmitter transporter, betaine/GABA), member 12	50676	*SLC6A12*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*
neogenin	81735	*NEO1*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
transglutaminase 1	60335	*TGM1*
fatty acid amide hydrolase	29347	*FAAH*
monoamine oxidase B	25750	*MAOB*
phosphorylase kinase, gamma 2 (testis)	140671	*PHKG2*
solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7	116638	*SLC17A7*
Rab geranylgeranyl transferase, a subunit	58983	*RABGGTA*
Cellular development		
insulin-like growth factor 1	24482	*IGF1*
intercellular adhesion molecule 1	25464	*ICAM1*
arrestin, beta 2	25388	*ARRB2*
chemokine (C–C motif) ligand 3	25542	*CCL3*
calcitonin receptor	116506	*CALCR*
cyclin-dependent kinase 5	140908	*CDK5*
phosphatase and tensin homolog	50557	*PTEN*
cyclin-dependent kinase 2	362817	*CDK2*
mitogen-activated protein kinase 14	81649	*MAPK14*
LIM motif–containing protein kinase 2	29524	*LIMK2*
signal transducer and activator of transcription 5A	24918	*STAT5A*
carbonic anhydrase 2	54231	*CA2*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
transglutaminase 1	60335	*TGM1*
peptidylprolyl isomerase A	25518	*PPIA*
rhoB gene	64373	*RHOB*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
CD24 antigen	25145	*CD24*
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
lectin, galactose binding, soluble 1	56646	*LGALS1*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
paired box gene 6	25509	*PAX6*
integrin beta 4	25724	*ITGB4*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
prothymosin alpha	29222	*PTMA*
cd86 antigen	56822	*CD86*
high mobility group box transcription factor 1	27080	*HBP1*
calcium and integrin binding 1 (calmyrin)	81823	*CIB1*
neuropilin 2	81527	*NRP2*
Notch gene homolog 3 (*Drosophila*)	56761	*NOTCH3*
Post–Translational Modification		
insulin-like growth factor 1	24482	*IGF1*
arrestin, beta 2	25388	*ARRB2*
chemokine (C–C motif) ligand 3	25542	*CCL3*
cyclin-dependent kinase 5	140908	*CDK5*
phosphatase and tensin homolog	50557	*PTEN*
cyclin-dependent kinase 2	362817	*CDK2*
mitogen-activated protein kinase 14	81649	*MAPK14*
LIM motif–containing protein kinase 2	29524	*LIMK2*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
transglutaminase 1	60335	*TGM1*
peptidylprolyl isomerase A	25518	*PPIA*
interleukin 7	25647	*IL7*
lectin, galactose binding, soluble 1	56646	*LGALS1*
homeodomain interacting protein kinase 3	83617	*HIPK3*
peroxiredoxin 1	117254	*PRDX1*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
phosphorylase kinase, gamma 2 (testis)	140671	*PHKG2*
Rab geranylgeranyl transferase, a subunit	58983	*RABGGTA*
gamma-glutamyl carboxylase	81716	*GGCX*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
Cellular function and maintenance		
insulin-like growth factor 1	24482	*IGF1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
cyclin-dependent kinase 5	140908	*CDK5*
phosphatase and tensin homolog	50557	*PTEN*
mitogen-activated protein kinase 14	81649	*MAPK14*
interleukin 7	25647	*IL7*
peroxiredoxin 1	117254	*PRDX1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
intercellular adhesion molecule 1	25464	*ICAM1*
CD24 antigen	25145	*CD24*
prothymosin alpha	29222	*PTMA*
high mobility group box transcription factor 1	27080	*HBP1*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
peptide YY (mapped)	287730	*PYY*
complexin 1	64832	*CPLX1*
synaptotagmin 3	25731	*SYT3*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
Rsec5 protein	171455	*EXOC2*
Cell to cell signaling and interaction		
insulin-like growth factor 1	24482	*IGF1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
cyclin-dependent kinase 5	140908	*CDK5*
phosphatase and tensin homolog	50557	*PTEN*
mitogen-activated protein kinase 14	81649	*MAPK14*
interleukin 7	25647	*IL7*
intercellular adhesion molecule 1	25464	*ICAM1*
CD24 antigen	25145	*CD24*
prothymosin alpha	29222	*PTMA*
peptide YY (mapped)	287730	*PYY*
complexin 1	64832	*CPLX1*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
arrestin, beta 2	25388	*ARRB2*
lectin, galactose binding, soluble 1	56646	*LGALS1*
signal transducer and activator of transcription 5A	24918	*STAT5A*
glial cell line–derived neurotrophic factor family receptor alpha 1	25454	*GFRA1*
androgen receptor	24208	*AR*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
integrin beta 4	25724	*ITGB4*
cd86 antigen	56822	*CD86*
calcium and integrin binding 1 (calmyrin)	81823	*CIB1*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
solute carrier family 4, member 1	24779	*SLC4A1*
neogenin	81735	*NEO1*
solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7	116638	*SLC17A7*
calbindin 1	83839	*CALB1*
hyperpolarization-activated, cyclic nucleotide–gated K^+ 4	59266	*HCN4*
potassium intermediate/small conductance calcium–activated channel, subfamily N, member 3	54263	*KCNN3*
RAS protein–specific guanine nucleotide–releasing factor 1	192213	*RASGRF1*
midkine	81517	*MDK*
glypican 3	25236	*GPC3*
activated leukocyte cell adhesion molecule	79559	*ALCAM*
tropomodulin 2	58814	*TMOD2*
cholinergic receptor, nicotinic, beta polypeptide 2 (neuronal)	54239	*CHRNB2*
Gene expression		
insulin-like growth factor 1	24482	*IGF1*
phosphatase and tensin homolog	50557	*PTEN*
mitogen-activated protein kinase 14	81649	*MAPK14*
prothymosin alpha	29222	*PTMA*
v-*myc* myelocytomatosis viral–related oncogene, neuroblastoma-derived (avian) (mapped)	298894	*MYCN*
lectin, galactose binding, soluble 1	56646	*LGALS1*
signal transducer and activator of transcription 5A	24918	*STAT5A*
androgen receptor	24208	*AR*
Inhibitor of DNA binding 2, dominant negative helix–loop–helix protein	25587	*ID2*
integrin beta 4	25724	*ITGB4*
cd86 antigen	56822	*CD86*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
neogenin	81735	*NEO1*
RAS protein–specific guanine nucleotide–releasing factor 1	192213	*RASGRF1*
cyclin-dependent kinase 2	362817	*CDK2*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
rhoB gene	64373	*RHOB*
paired box gene 6	25509	*PAX6*
cytochrome *P*450, family 19, subfamily a, polypeptide 1	25147	*CYP19A1*
Notch gene homolog 3 (*Drosophila*)	56761	*NOTCH3*
glutathione *S*-transferase, pi 2	29438	*GSTP1*
nuclear factor I/X	81524	*NFIX*
FXYD domain–containing ion transport regulator 1	58971	*FXYD1*
mitogen-activated protein kinase 13	29513	*MAPK13*
structure-specific recognition protein 1	81785	*SSRP1*
proteasome (prosome, macropain) 26S subunit, non-ATPase, 9	161475	*PSMD9*
basic transcription element binding protein 1	117560	*KLF9*
Kruppel-like factor 15	85497	*KLF15*
general transcription factor IIa 2	83828	*GTF2A2*
Sjogren syndrome antigen B	81783	*SSB*
fatty acid binding protein 4, adipocyte	79451	*FABP4*
PDZ and LIM domain 1 (elfin)	54133	*PDLIM1*
Amino acid metabolism		
insulin-like growth factor 1	24482	*IGF1*
phosphatase and tensin homolog	50557	*PTEN*
mitogen-activated protein kinase 14	81649	*MAPK14*
cyclin-dependent kinase 2	362817	*CDK2*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
cyclin-dependent kinase 5	140908	*CDK5*
solute carrier family 4, member 1	24779	*SLC4A1*
solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7	116638	*SLC17A7*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
LIM motif–containing protein kinase 2	29524	*LIMK2*
protein tyrosine phosphatase, nonreceptor type 12	117255	*PTPN12*
transglutaminase 1	60335	*TGM1*
homeodomain interacting protein kinase 3	83617	*HIPK3*
phosphorylase kinase, gamma 2 (testis)	140671	*PHKG2*
Rab geranylgeranyl transferase, a subunit	58983	*RABGGTA*
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
Lipid metabolism		
insulin-like growth factor 1	24482	*IGF1*
phosphatase and tensin homolog	50557	*PTEN*
nuclear receptor subfamily 1, group I, member 2	84385	*NR1I2*
transglutaminase 1	60335	*TGM1*
signal transducer and activator of transcription 5A	24918	*STAT5A*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
neogenin	81735	*NEO1*
arrestin, beta 2	25388	*ARRB2*
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
arrestin, beta 1	25387	*ARRB1*
insulin-induced gene 1	64194	*INSIG1*
fatty acid amide hydrolase	29347	*FAAH*
Cellular compromise		
ATP-binding cassette, subfamily C (CFTR/MRP), member 1	24565	*ABCC1*
fatty acid amide hydrolase	29347	*FAAH*
mitogen-activated protein kinase 14	81649	*MAPK14*
RAS protein–specific guanine nucleotide–releasing factor 1	192213	*RASGRF1*
peroxiredoxin 1	117254	*PRDX1*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*

Table W4. (*continued*)

Gene Names	Locus ID	Symbol
cytochrome *P*450, family 2, subfamily e, polypeptide 1	25086	*CYP2E1*
Vitamin and mineral metabolism		
insulin-like growth factor 1	24482	*IGF1*
endothelial differentiation sphingolipid G-protein–coupled receptor 1	29733	*EDG1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
intercellular adhesion molecule 1	25464	*ICAM1*
calbindin 1	83839	*CALB1*
peptidylprolyl isomerase A	25518	*PPIA*
calcitonin receptor	116506	*CALCR*
A kinase (PRKA) anchor protein 1	114124	*AKAP1*
ERM-binding phosphoprotein	59114	*SLC9A3R1*
potassium inwardly rectifying channel, subfamily J, member 11	83535	*KCNJ11*
transient receptor potential cation channel, subfamily C, member 2	64573	*TRPC2*
Drug metabolism		
ATPase, Cu^{2+} transporting, beta polypeptide	24218	*ATP7B*
Others/unclassified		
solute carrier family 5 (sodium-dependent vitamin transporter), member 6	170551	*SLC5A6*
solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	60423	*SLC28A2*
selenoprotein P, plasma, 1	29360	*SEPP1*
etoile, Sam68-like protein SLM-2	64015	*KHDRBS3*
ubc2e ubiquitin–conjugating enzyme	641452	*UBE2D2*
RT1 class II, locus Da	294269	*HLA-DRA*
similar to Leydig cell tumor 10 kDa protein	288913	*C19ORF53*
voltage-gated channel like 1	266760	*VGCNL1*
guanine nucleotide binding protein (G protein), gamma 8 subunit	245986	*GNG8*
membrane and microfilament–associated protein p58	207121	*RGD:727794*
seminal vesicle secretion 3	192239	*SEMG2*
methionine adenosyltransferase II, alpha	171347	*MAT2A*
LIM homeobox protein 5	124451	*LHX5*
CD52 antigen	117054	*CD52*
CEA-related cell adhesion molecule 9	116711	*CEACAM9*
ubiquilin 1	114590	*UBQLN1*
carboxylesterase 3	113902	*CES1*
synaptogyrin 2	89815	*SYNGR2*
low-density lipoprotein receptor–related protein 3	89787	*LRP3*
MAD homolog 9 (*Drosophila*)	85435	*SMAD9*
protein kinase C, delta binding protein	85332	*PRKCDBP*
nucleobindin 1	84595	*NUCB1*
RAB6A, member RAS oncogene family	84379	*RAB6A*
ATPase, class II, type 9A	84011	*ATP9A*
NSFL1 (p97) cofactor (p47)	83809	*NSFL1C*
tripartite motif protein 3	83616	*TRIM3*
discoidin domain receptor family, member 2	83573	*DDR2*
cadherin EGF LAG seven-pass G-type receptor 2	83465	*CELSR2*
5-hydroxytryptamine (serotonin) receptor 5B	79247	*HTR5B*
ADP-ribosylation factor 4	79120	*ARF4*
olfactory receptor 226	65140	*OR6A2*
probasin	54193	*PBSN*
mini chromosome maintenance deficient 6 (*S. cerevisiae*)	29685	*MCM6*
argininosuccinate synthetase	25698	*ASS1*
sialyltransferase 8 C	25547	*ST8SIA3*
apolipoprotein B editing complex 1	25383	*APOBEC1*
lysozyme	25211	*LYZ*
secretoglobin, family 2A, member 1	25010	*PSBP1*
phosphoglucomutase 1	24645	*PGM1*
filaggrin	24641	*FLG*
malate dehydrogenase 1, NAD (soluble)	24551	*MDH1*

Genes were categorized according to their cellular functions (in bold and italics).

Table W5. T + DES–Insensitive Panel: Genes Whose Expression Levels Were Not Significantly Changed in the LPs or/and VPs following T + DES Treatment Relative to Their Respective Untreated Controls.

Gene Names	Locus ID	Symbol
Amino acid metabolism		
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
Carbohydrate metabolism		
protein kinase, AMP-activated, alpha 2 catalytic subunit	78975	*PRKAA2*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
interleukin 7	25647	*IL7*
Cell cycle		
interleukin 7	25647	*IL7*
myogenic differentiation 1	337868	*MYOD1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
calcitonin receptor	116506	*CALCR*
structure-specific recognition protein 1	81785	*SSRP1*
midkine	81517	*MDK*
chemokine (C–C motif) ligand 3	25542	*CCL3*
signal transducer and activator of transcription 5A	24918	*STAT5A*
Fanconi anemia, complementation group C	24361	*FANCC*
androgen receptor	24208	*AR*
Cell death		
interleukin 7	25647	*IL7*
myogenic differentiation 1	337868	*MYOD1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
calcitonin receptor	116506	*CALCR*
structure-specific recognition protein 1	81785	*SSRP1*
midkine	81517	*MDK*
chemokine (C–C motif) ligand 3	25542	*CCL3*
signal transducer and activator of transcription 5A	24918	*STAT5A*
Fanconi anemia, complementation group C	24361	*FANCC*
androgen receptor	24208	*AR*
protein kinase, AMP-activated, alpha 2 catalytic subunit	78975	*PRKAA2*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
metallothionein 3	117038	*MT3*
HLA-B–associated transcript 3	94342	*BAT3*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
linker for activation of T cells	81511	*LAT*
epithelial membrane protein 3	81505	*EMP3*
thioredoxin reductase 2	50551	*PAX3*
xanthine dehydrogenase	29289	*XDH*
arrestin, beta 2	25388	*ARRB2*
milk fat globule–EGF factor 8 protein	25277	*MFGE8*
early growth response 4	25129	*EGR4*
transthyretin	24856	*TTR*
myosin heavy chain 11	24582	*MYH11*
metallothionein 1a	24567	*MT1E*
benzodiazepine receptor, peripheral	24230	*TSPO*
Cell morphology		
myogenic differentiation 1	337868	*MYOD1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
chemokine (C–C motif) ligand 3	25542	*CCL3*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
thioredoxin reductase 2	50551	*PAX3*
myosin heavy chain 11	24582	*MYH11*
potassium inwardly rectifying channel, subfamily J, member 11	83535	*KCNJ11*
lumican	81682	*LUM*
neuropilin 2	81527	*NRP2*
high mobility group box transcription factor 1	27080	*HBP1*
persephin	25525	*PSPN*
Cell signaling		
linker for activation of T cells	81511	*LAT*
arrestin, beta 2	25388	*ARRB2*
Cell to cell signaling and interaction		
linker for activation of T cells	81511	*LAT*
arrestin, beta 2	25388	*ARRB2*
chemokine (C–C motif) ligand 3	25542	*CCL3*
thioredoxin reductase 2	50551	*PAX3*

Table W5. (*continued*)

Gene Names	Locus ID	Symbol
neuropilin 2	81527	*NRP2*
interleukin 7	25647	*IL7*
midkine	81517	*MDK*
signal transducer and activator of transcription 5A	24918	*STAT5A*
Fanconi anemia, complementation group C	24361	*FANCC*
xanthine dehydrogenase	29289	*XDH*
milk fat globule–EGF factor 8 protein	25277	*MFGE8*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
pleckstrin homology, Sec7 and coiled/coil domains 1	116691	*PSCD1*
a disintegrin and metalloproteinase domain 15 (metargidin)	57025	*ADAM15*
Cellular assembly and organization		
neuropilin 2	81527	*NRP2*
signal transducer and activator of transcription 5A	24918	*STAT5A*
xanthine dehydrogenase	29289	*XDH*
milk fat globule–EGF factor 8 protein	25277	*MFGE8*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
myosin heavy chain 11	24582	*MYH11*
lumican	81682	*LUM*
androgen receptor	24208	*AR*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
metallothionein 1a	24567	*MT1E*
Cellular compromise		
xanthine dehydrogenase	29289	*XDH*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
metallothionein 1a	24567	*MT1E*
linker for activation of T cells	81511	*LAT*
chemokine (C–C motif) ligand 3	25542	*CCL3*
thioredoxin reductase 2	50551	*PAX3*
metallothionein 3	117038	*MT3*
early growth response 4	25129	*EGR4*
Cellular development		
xanthine dehydrogenase	29289	*XDH*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
linker for activation of T cells	81511	*LAT*
chemokine (C–C motif) ligand 3	25542	*CCL3*
thioredoxin reductase 2	50551	*PAX3*
neuropilin 2	81527	*NRP2*
signal transducer and activator of transcription 5A	24918	*STAT5A*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
myosin heavy chain 11	24582	*MYH11*
androgen receptor	24208	*AR*
arrestin, beta 2	25388	*ARRB2*
interleukin 7	25647	*IL7*
Fanconi anemia, complementation group C	24361	*FANCC*
myogenic differentiation 1	337868	*MYOD1*
high mobility group box transcription factor 1	27080	*HBP1*
calcitonin receptor	116506	*CALCR*
interferon-induced transmembrane protein 2 (1–8D)	114709	*IFITM2*
CD164 antigen	83689	*CD164*
etoile, Sam68-like protein SLM-2	64015	*KHDRBS3*
carbonic anhydrase 2	54231	*CA2*
testis-specific protein, Y-linked	25223	*TSPY1*
histone 1, H1t	24438	*HIST1H1T*
Cellular function and maintenance		
linker for activation of T cells	81511	*LAT*
chemokine (C–C motif) ligand 3	25542	*CCL3*
signal transducer and activator of transcription 5A	24918	*STAT5A*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
Fanconi anemia, complementation group C	24361	*FANCC*
myogenic differentiation 1	337868	*MYOD1*
high mobility group box transcription factor 1	27080	*HBP1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
Cellular growth and proliferation		
chemokine (C–C motif) ligand 3	25542	*CCL3*
signal transducer and activator of transcription 5A	24918	*STAT5A*
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
Fanconi anemia, complementation group C	24361	*FANCC*

Table W5. (*continued*)

Gene Names	Locus ID	Symbol
myogenic differentiation 1	337868	*MYOD1*
casein kinase II, alpha 1 polypeptide	116549	*CSNK2A1*
xanthine dehydrogenase	29289	*XDH*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
thioredoxin reductase 2	50551	*PAX3*
myosin heavy chain 11	24582	*MYH11*
arrestin, beta 2	25388	*ARRB2*
calcitonin receptor	116506	*CALCR*
CD164 antigen	83689	*CD164*
testis-specific protein, Y-linked	25223	*TSPY1*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*
early growth response 4	25129	*EGR4*
lumican	81682	*LUM*
midkine	81517	*MDK*
a disintegrin and metalloproteinase domain 15 (metargidin)	57025	*ADAM15*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
epithelial membrane protein 3	81505	*EMP3*
nucleosome assembly protein 1–like 1	89825	*NAP1L1*
solute carrier family 29 (nucleoside transporters), member 1	63997	*SLC29A1*
beta-microseminoprotein	29311	*MSMB*
ferritin light chain 1	29292	*FTL*
Cellular movement		
chemokine (C–C motif) ligand 3	25542	*CCL3*
androgen receptor	24208	*AR*
interleukin 7	25647	*IL7*
xanthine dehydrogenase	29289	*XDH*
thioredoxin reductase 2	50551	*PAX3*
myosin heavy chain 11	24582	*MYH11*
arrestin, beta 2	25388	*ARRB2*
neuropilin 2	81527	*NRP2*
DNA replication, recombination, and repair		
androgen receptor	24208	*AR*
arrestin, beta 2	25388	*ARRB2*
structure-specific recognition protein 1	81785	*SSRP1*
phosphodiesterase 5A, cGMP-specific	171115	*PDE5A*
Drug metabolism		
androgen receptor	24208	*AR*
xanthine dehydrogenase	29289	*XDH*
solute carrier family 29 (nucleoside transporters), member 1	63997	*SLC29A1*
solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	60423	*SLC28A2*
Free radical scavenging		
xanthine dehydrogenase	29289	*XDH*
Fanconi anemia, complementation group C	24361	*FANCC*
Gene expression		
Fanconi anemia, complementation group C	24361	*FANCC*
androgen receptor	24208	*AR*
structure-specific recognition protein 1	81785	*SSRP1*
interleukin 7	25647	*IL7*
myosin heavy chain 11	24582	*MYH11*
signal transducer and activator of transcription 5A	24918	*STAT5A*
myogenic differentiation 1	337868	*MYOD1*
nuclear receptor subfamily 2, group F, member 1	81808	*NR2F1*
Lipid metabolism		
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
xanthine dehydrogenase	29289	*XDH*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
protein kinase, AMP-activated, alpha 2 catalytic subunit	78975	*PRKAA2*
nuclear receptor binding factor 1	29470	*MECR*
selenoprotein P, plasma, 1	29360	*SEPP1*
Molecular transport		
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
xanthine dehydrogenase	29289	*XDH*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*

Table W5. (*continued*)

Gene Names	Locus ID	Symbol
protein kinase, AMP-activated, alpha 2 catalytic subunit	78975	*PRKAA2*
Fanconi anemia, complementation group C	24361	*FANCC*
interleukin 7	25647	*IL7*
solute carrier family 29 (nucleoside transporters), member 1	63997	*SLC29A1*
solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	60423	*SLC28A2*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
carbonic anhydrase 2	54231	*CA2*
potassium inwardly rectifying channel, subfamily J, member 11	83535	*KCNJ11*
solute carrier family 5 (sodium-dependent vitamin transporter), member 6	170551	*SLC5A6*
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
solute carrier family 30 (zinc transporter), member 2	25362	*SLC30A2*
sodium channel, nonvoltage-gated, type I, alpha polypeptide	25122	*SCNN1A*
Nucleic acid metabolism		
xanthine dehydrogenase	29289	*XDH*
solute carrier family 29 (nucleoside transporters), member 1	63997	*SLC29A1*
solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	60423	*SLC28A2*
nuclear receptor binding factor 1	29470	*MECR*
arrestin, beta 2	25388	*ARRB2*
phosphodiesterase 5A, cGMP-specific	171115	*PDE5A*
Post–translational modification		
xanthine dehydrogenase	29289	*XDH*
RNA post–transcriptional modification		
Fanconi anemia, complementation group C	24361	*FANCC*
Small molecule biochemistry		
xanthine dehydrogenase	29289	*XDH*
solute carrier family 29 (nucleoside transporters), member 1	63997	*SLC29A1*
solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	60423	*SLC28A2*
nuclear receptor binding factor 1	29470	*MECR*
arrestin, beta 2	25388	*ARRB2*
phosphodiesterase 5A, cGMP-specific	171115	*PDE5A*
androgen receptor	24208	*AR*
signal transducer and activator of transcription 5A	24918	*STAT5A*
mannoside acetyl glucosaminyltransferase 3	29582	*MGAT3*
protein kinase, AMP-activated, alpha 2 catalytic subunit	78975	*PRKAA2*
interleukin 7	25647	*IL7*
neurotrophic tyrosine kinase, receptor, type 3	29613	*NTRK3*
carbonic anhydrase 2	54231	*CA2*
solute carrier family 5 (sodium-dependent vitamin transporter), member 6	170551	*SLC5A6*
solute carrier family 32 (GABA vesicular transporter), member 1	83612	*SLC32A1*
inositol polyphosphate phosphatase–like 1	65038	*INPPL1*
selenoprotein P, plasma, 1	29360	*SEPP1*
metallothionein 1a	24567	*MT1E*
metallothionein 3	117038	*MT3*
ferritin light chain 1	29292	*FTL*
Vitamin and mineral metabolism		
solute carrier family 5 (sodium-dependent vitamin transporter), member 6	170551	*SLC5A6*
linker for activation of T cells	81511	*LAT*
Others/unclassified		
guanine nucleotide binding protein (G protein), gamma 8 subunit	245986	*GNG8*
H1 histone family, member 4	201097	*H1F4*
glutaminase 2 (liver, mitochondrial)	192268	*GLS2*
seminal vesicle secretion 3	192239	*SEMG2*
proteasome (prosome, macropain) 26S subunit, non-ATPase, 9	161475	*PSMD9*
protein tyrosine phosphatase, nonreceptor type 23	117552	*PTPN23*
CD52 antigen	117054	*CD52*

Table W5. (*continued*)

Gene Names	Locus ID	Symbol
ribosomal protein L6	117042	*RPL6*
importin 13	116458	*IPO13*
general transcription factor IIa 2	83828	*GTF2A2*
tripartite motif protein 3	83616	*TRIM3*
ribosomal protein L5	81763	*RPL5*
ribosomal protein S8	65136	*RPS8*
defensin beta 3	64389	*DEFB4*
ribosomal protein L31	64298	*RPL31*
ribosomal protein L35a	57809	*RPL35A*
solute carrier family 14 (urea transporter), member 1	54301	*SLC14A1*
probasin	54193	*PBSN*
mini chromosome maintenance-deficient 6 (*S. cerevisiae*)	29685	*MCM6*
proteasome (prosome, macropain) subunit, beta type 3	29676	*PSMB3*
peptidyl arginine deiminase, type II	29511	*PADI2*
coronin, actin-binding protein, 1B	29474	*CORO1B*
ribosomal protein S26	27139	*RPS26*
sialyltransferase 8 C	25547	*ST8SIA3*
crystallin, beta B2	25422	*CRYBB2*
glutamate-ammonia ligase (glutamine synthase)	24957	*CCDC92*
malate dehydrogenase 1, NAD (soluble)	24551	*MDH1*

Genes were categorized according to their cellular functions (in bold and italics).