

The Anxiolytic and Antidepressant-like Effects of Testosterone and Estrogen in Gonadectomized Male Rats

Supplemental Information

Supplemental Methods and Materials

Mass Spectrometry

Brain tissue extract was redissolved in 10% acetonitrile aqueous solution with 0.1% formic acid (20 μ L/10 mg tissue). The above solution, 3.75 μ L, was injected to be separated by liquid chromatography with a NanoAquity nanoLC system (Waters, Milford, MA). Eluents were ionized by nano electrospray ionization in positive mode and detected online with a Xevo TQ-S Triple Quadrupole Mass Spectrometer (Waters, Milford, MA). A Symmetry C18 5 μ m 0.180 x 20 mm trap column and a HSS T3 1.8 μ m 0.075 x 150 mm analytical column (both by Waters, Milford, MA) in a vented configuration were used for separation. The LC gradient was formed from buffer A (0.1% formic acid in water) and buffer B (0.1% formic acid in acetonitrile). Sample solution was loaded on the trap column at 10 μ L/min for 0.5 min at 10% B. The gradient profile was: 10% B at run start, 95% B at 15 minutes, 10% B from 20-35 minutes at 0.4 μ L/min flow rate. The conditions for the nanoelectrospray source were: +3 kV capillary voltage, 30 V cone voltage, 50 V source offset, 70°C source temperature, and 0.20 bar spray gas. Two MRM transitions (testosterone: m/z 289/109 and testosterone-d3: m/z 292/109) were acquired at 3 ms dwell time and 30 V collision energy. Seven calibration standards were prepared containing 0.5 ng/mL of testosterone-d3 and a range of testosterone/testosterone-d3: 0.02, 0.1, 0.2, 1, 2, 10 & 20 ng/mL.

Samples and standards were run in triplicate. Chromatograms were acquired and the area under curve (AUC) was calculated for both testosterone and the IS, testosterone-d3. The concentration of testosterone in the unknown samples was calculated by comparing the AUC to the standard curve of the calibration standards under the same condition. Data were analyzed by two-way ANOVA, followed by post-hoc Bonferroni's multiple comparisons tests.

Table S1. Forward and reverse primer pair sequences used for qRT-PCR.

Gene	Forward (5'→ 3')	Reverse (5'→ 3')
<i>5ht2c</i>	TTGGACTGAGGGACGAAGC	GGATGAAGAATGCCACGAAGG
<i>Egf</i>	TCTGGGCTCAGGACGGTAGA	ATGGATGGAGCCACCGTTATAG
<i>Eif4ebp1</i>	TCACTAGCCCTACCAGCGAT	TGTGACTCTTCACCACCTGC
<i>Gabra3</i>	TGCTGAGACCAAGACCTACAAC	TGGCAAAGAGCACAGGGAAG
<i>Gr</i>	ACCAACGGAGGCAGTGTGAAA	GGGGACCCAGCGGAAAAC
<i>Hgf</i>	CAATTTGGACCATCCTGTAATATCC	TCAAATAACCATCCACCCTACTG
<i>Ngfr</i>	TGCAGTGTGCAGATGTGCCT	GGGATCTCTTCGCATTCAGC
<i>Ntf4</i>	TCCCCTGCGTCAGTACTTCT	CCCTGTGGTCCTTTCAGCAT
<i>Pik3r1</i>	AGGAGCGGTACAGCAAAGAC	CTGCTGTGCATGATCTCGCT
<i>Raf1</i>	CAATGGTTTTCGGACTCAA	GCGTCGGTGTTCCAATCT
<i>Vegf</i>	GAGGAAAGGGAAAGGGTCAAAA	CACAGTGAACGCTCCAGGATT

Table S2. List of differentially expressed genes regulated by testosterone supplementation, estradiol supplementation or both hormone treatments.

	Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
			Fold Change	p-Value	Fold Change	p-Value
<i>Testosterone Only</i>	<i>Pik3r1</i>	phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 1	18.8646	0.0082	9.0390	0.1540
	<i>Pcdhb5</i>	similar to protocadherin beta 5	16.2618	0.0055	3.6645	0.0608
	<i>Rnf6</i>	similar to ring finger protein (C3H2C3 type) 6	14.7348	0.0030	5.0850	0.4510
	<i>Zbtb33</i>	similar to kaiso protein	10.3786	0.0349	6.2248	0.1160
	<i>Rgd1560666</i>	similar to plectin 1	10.3210	0.0316	9.4424	0.0664
	<i>Nrn1</i>	neuritin	9.7154	0.0050	4.1840	0.1380
	<i>Pomt2</i>	hypothetical protein LOC681879	8.3252	0.0450	6.6499	0.0605
	<i>Chrdl1</i>	neurogenesis 1	7.1305	0.0353	5.1099	0.0846
	<i>Slc25a24</i>	similar to calcium-binding transporter	6.8743	0.0089	3.2202	0.0694
	<i>Chm</i>	choroideremia	6.6697	0.0254	4.6724	0.0634
	<i>Ankib1</i>	similar to Ankyrin repeat and IBR domain-containing protein 1	6.4396	0.0279	5.3528	0.0543
	<i>Mum1l1</i>	similar to melanoma associated antigen (mutated) 1-like 1	6.2026	0.0099	2.5405	0.0789
	<i>Phtf2</i>	similar to putative homeodomain transcription factor 2	6.1962	0.0207	4.4855	0.0847
	<i>Chd1</i>	similar to Chromodomain-helicase-DNA-binding protein 1 (ATP-dependent helicase CHD1) (CHD-1)	6.1175	0.0062	4.4361	0.1110
	<i>Nid1</i>	similar to Nidogen-1 precursor (Entactin)	5.9236	0.0323	2.2348	0.2070
<i>Rgd1560883</i>	similar to CG14085-PB, isoform B	5.7992	0.0172	3.6490	0.0520	
<i>Rgd1562291</i>	similar to T-cell leukemia virus enhancer factor	5.4673	0.0412	3.0188	0.1190	

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Lrch2</i>	similar to leucine-rich repeats and calponin homology (CH) domain containing 2	5.4236	0.0280	3.4002	0.0992
<i>C5ar1</i>	complement component 5, receptor 1	5.2735	0.0186	5.2812	0.0941
<i>Tmem196</i>	hypothetical protein LOC500750	5.0966	0.0272	4.7563	0.0937
<i>Zfx</i>	similar to Zinc finger X-chromosomal protein	4.9601	0.0496	2.5391	0.1380
<i>Nf1</i>	neurofibromatosis 1	4.8023	0.0220	2.8653	0.0700
<i>Hook1</i>	similar to hook homolog 1	4.7006	0.0297	2.3230	0.0836
<i>Pik3c2a</i>	similar to Phosphatidylinositol-4-phosphate 3-kinase C2 domain-containing alpha polypeptide (Phosphoinositide 3-Kinase-C2-alpha) (PtdIns-3-kinase C2 alpha) (PI3K-C2alpha) (Cpk-m) (p170)	4.6417	0.0273	3.8273	0.0599
<i>Pip5k3</i>	similar to phosphatidylinositol-3-phosphate/phosphatidylinositol 5-kinase, type III isoform 2	4.4995	0.0392	3.4946	0.0953
<i>Frmpl4</i>	similar to PDZ domain containing 10	4.3987	0.0472	3.3011	0.0879
<i>Hgf</i>	hepatocyte growth factor	4.3560	0.0147	2.9869	0.0930
<i>Slc25a31</i>	similar to solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 31	4.3392	0.0188	1.4907	0.4110
<i>Ocr1</i>	similar to phosphatidylinositol polyphosphate 5-phosphatase	4.3257	0.0077	2.8005	0.0621
<i>Afg3l1</i>	similar to AFG3(ATPase family gene 3)-like 1	4.3001	0.0477	2.8684	0.0583
<i>Manea</i>	mannosidase, endo-alpha	4.2721	0.0366	2.8595	0.1320
<i>Rgd1563945</i>	similar to PHD finger protein 16	4.2388	0.0450	3.5464	0.1220
<i>Mier3</i>	similar to CG1620-PA	4.2230	0.0478	3.3716	0.1990

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Itga1</i>	integrin alpha 1	4.1321	0.0329	3.6468	0.1450
<i>Mtmr10</i>	similar to phosphatidylinositol-3-phosphatase associated protein (predicted)	4.0481	0.0335	3.3095	0.0595
<i>Tbckl</i>	similar to CG4041-PA	4.0252	0.0358	3.6872	0.0964
<i>Racgap1</i>	similar to Rac GTPase-activating protein 1	3.9536	0.0455	2.9803	0.0756
<i>Klhl15</i>	similar to kelch-like 15	3.8859	0.0213	2.8635	0.0571
<i>Nfatc2ip</i>	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 interacting protein	3.8026	0.0193	2.1112	0.2780
<i>Robo1</i>	similar to roundabout homolog 1	3.8000	0.0318	2.1446	0.1160
<i>Loc686994</i>	similar to Zinc finger protein 84 (Zinc finger protein HPF2)	3.7444	0.0046	2.4739	0.0679
<i>Mid1</i>	midline 1	3.7249	0.0277	2.9542	0.1460
<i>Rsad2</i>	radical S-adenosyl methionine domain containing 2	3.7046	0.0076	1.2499	0.2720
<i>Rgd1307325</i>	hypothetical protein LOC306469	3.6637	0.0471	2.2538	0.1180
<i>Rgd1563952</i>	similar to Motile sperm domain-containing protein 2	3.6106	0.0422	2.1006	0.0547
<i>Klhl23</i>	similar to kelch-like 23	3.6097	0.0244	2.2153	0.1600
<i>Rgd1562371</i>	similar to GREB1 protein isoform a	3.6062	0.0438	2.5468	0.1000
<i>Pcdhb14</i>	similar to protocadherin beta 14	3.5993	0.0157	2.2026	0.0753
<i>Lin54</i>	similar to metallothionein-like 5, testis-specific (tesmin) (predicted)	3.5972	0.0259	2.1839	0.0817
<i>Cpeb3</i>	similar to cytoplasmic polyadenylation element binding protein 3	3.5882	0.0154	2.8559	0.0511

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Rgd1563615</i>	similar to Contactin-associated protein-like 3 precursor (Cell recognition molecule Caspr3)	3.5502	0.0104	2.0760	0.3180
<i>Smek1</i>	similar to falafel CG9351-PA, isoform A isoform 1	3.5431	0.0176	1.8778	0.0813
<i>Ccdc77</i>	similar to C33D9.5	3.5172	0.0235	2.5499	0.1190
<i>Tesk2</i>	testis-specific kinase 2	3.5092	0.0363	2.4316	0.0734
<i>Rgd1307177</i>	hypothetical protein	3.4947	0.0161	2.3545	0.1470
<i>Rabl3</i>	similar to RAB, member of RAS oncogene family-like 3 isoform 1	3.4833	0.0022	1.5458	0.3130
<i>Rabl3</i>	similar to RAB, member of RAS oncogene family-like 3 isoform 2	3.4744	0.0064	1.2950	0.2870
<i>Pik3ca</i>	similar to Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha isoform (PI3-kinase p110 subunit alpha) (PtdIns-3-kinase p110) (PI3K)	3.4706	0.0232	2.5199	0.0622
<i>Loc687716</i>	similar to ataxin 2-like	3.4686	0.0246	1.9751	0.1880
<i>Mctp2</i>	similar to multiple C2-domains with two transmembrane regions 2	3.4614	0.0054	2.5090	0.0580
<i>Dennd1b</i>	similar to CG18659-PA, isoform A	3.4466	0.0217	5.0901	0.0520
<i>Ranbp17</i>	similar to RAN binding protein 17	3.4340	0.0484	2.5941	0.0937
<i>Hltf</i>	similar to SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 3 (Sucrose nonfermenting protein 2-like 3) (TNF-response element-binding protein) (P113)	3.3849	0.0216	2.0721	0.0986
<i>Rps6ka6</i>	similar to ribosomal protein S6 kinase polypeptide 6	3.3628	0.0151	1.3005	0.2760

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Epha3</i>	Eph receptor A3	3.3514	0.0178	1.5124	0.1800
<i>Trhde</i>	similar to Thyrotropin-releasing hormone degrading ectoenzyme (TRH-degrading ectoenzyme) (TRH-DE) (TRH-specific aminopeptidase) (Thyroliberinase) (Pyroglutamyl-peptidase II) (PAP-II)	3.3464	0.0158	2.1261	0.0948
<i>Twsg1</i>	similar to twisted gastrulation homolog 1	3.3426	0.0293	2.7940	0.0587
<i>Stat4</i>	signal transducer and activator of transcription 1 isoform beta	3.3265	0.0206	2.2634	0.0662
<i>Tmem48</i>	hypothetical protein LOC362557	3.3250	0.0327	1.9131	0.0773
<i>Loc500700</i>	similar to chromosome 14 open reading frame 145 isoform 1	3.3136	0.0213	2.4176	0.1160
<i>Stk11</i>	similar to serine/threonine kinase 11	3.3096	0.0025	3.8884	0.2240
<i>Rhot1</i>	ring finger protein 135	3.2963	0.0345	3.1583	0.0547
<i>Soat1</i>	sterol O-acyltransferase 1	3.2887	0.0445	2.4935	0.0908
<i>Robo1</i>	roundabout homolog 1	3.2749	0.0471	2.1226	0.1180
<i>Rgd1560157</i>	similar to CG10979-PA isoform 2	3.2738	0.0308	1.4509	0.1250
<i>Ppef1</i>	protein phosphatase with EF hand calcium-binding domain 1	3.2457	0.0028	1.2660	0.0792
<i>Nid1</i>	similar to Nidogen-1 precursor (Entactin)	3.2428	0.0383	1.2795	0.4730
<i>Mrpl43</i>	similar to mitochondrial ribosomal protein L43	3.2419	0.0463	3.4578	0.1770
<i>Sox30</i>	similar to ADAM 19 precursor (A disintegrin and metalloproteinase domain 19) (Meltrin beta)	3.2331	0.0220	1.5638	0.0961
<i>Rgd1560559</i>	similar to putative membrane protein Re9	3.2326	0.0060	0.7558	0.8570

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Adam10</i>	similar to ADAM 10 precursor (A disintegrin and metalloproteinase domain 10) (Mammalian disintegrin-metalloprotease) (Kuzbanian protein homolog)	3.2231	0.0255	2.0741	0.1190
<i>Rb11</i>	similar to Retinoblastoma-like protein 1 (107 kDa retinoblastoma-associated protein) (PRB1) (P107)	3.2111	0.0373	2.6844	0.0974
<i>Shroom2</i>	apical protein of Xenopus-like	3.1914	0.0160	2.7077	0.0577
<i>Zfp317</i>	similar to zinc finger protein 75	3.1788	0.0081	1.4399	0.0981
<i>Nr3c2</i>	nuclear receptor subfamily 3, group C, member 2	3.1785	0.0479	2.3447	0.1270
<i>Gabrb2</i>	gamma-aminobutyric acid receptor, subunit beta 2	3.1695	0.0330	3.5238	0.0612
<i>Abcc9</i>	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	3.1650	0.0195	2.4102	0.1680
<i>Loc501327</i>	hypothetical protein	3.1319	0.0331	2.8261	0.1490
<i>Cp110</i>	similar to CP110 protein	3.1264	0.0275	1.6034	0.1500
<i>Clcn4-2</i>	chloride channel 4	3.1249	0.0056	2.8298	0.0539
<i>Tmprss7</i>	similar to transmembrane serine protease 7	3.1216	0.0146	1.9484	0.0987
<i>Helq</i>	similar to DNA helicase HEL308	3.1125	0.0249	2.4095	0.0591
<i>Nudt12</i>	similar to nudix (nucleoside diphosphate linked moiety X)-type motif 12	3.0987	0.0355	1.9599	0.2030
<i>Fam176a</i>	hypothetical protein	3.0958	0.0113	2.6186	0.0581
<i>Atm</i>	similar to Serine-protein kinase ATM (Ataxia telangiectasia mutated homolog) (A-T, mutated homolog)	3.0957	0.0451	2.5553	0.0900

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Ilf3</i>	interleukin enhancer binding factor 3	3.0955	0.0173	2.0224	0.0510
<i>Hs6st2</i>	similar to Heparan-sulfate 6-O-sulfotransferase 2 (HS6ST-2) (mHS6ST-2) isoform 3	3.0940	0.0388	1.6339	0.1930
<i>Zbtb11</i>	similar to Zinc finger and BTB domain-containing protein 11	3.0930	0.0418	2.1527	0.1150
<i>Herc3</i>	similar to hect domain and RLD 3 isoform 3	3.0631	0.0124	2.2928	0.0692
<i>B3gatl1</i>	similar to beta 3-glycosyltransferase-like	3.0609	0.0250	2.7629	0.1910
<i>Gad1</i>	glutamate decarboxylase 1	3.0584	0.0345	2.9072	0.0511
<i>Skil</i>	similar to Ski-like protein (Ski-related protein) (Ski-related oncogene) isoform 1	3.0559	0.0459	2.5174	0.1500
<i>Kpna5</i>	karyopherin alpha 5 (importin alpha 6)	3.0483	0.0328	2.8600	0.0626
<i>Sos1</i>	similar to Son of sevenless homolog 1	3.0327	0.0487	2.3714	0.0540
<i>Ccdc115</i>	hypothetical protein	3.0327	0.0268	2.1657	0.0722
<i>Zbbx</i>	hypothetical protein LOC361964	3.0214	0.0481	1.6823	0.1040
<i>Zfat</i>	similar to zinc finger protein 406	3.0055	0.0496	2.2377	0.0613
<i>Zswim3</i>	similar to zinc finger, SWIM domain containing 3	3.0029	0.0492	2.5784	0.1200
<i>Rgd1565967</i>	similar to Rho-GTPase-activating protein 6 (Rho-type GTPase-activating protein RhoGAPX-1)	3.0023	0.0058	1.6873	0.1010
<i>Nova1</i>	similar to neuro-oncological ventral antigen 1 isoform 1 isoform 1	2.9824	0.0313	2.4822	0.0522
<i>Zpf397os</i>	similar to zinc finger protein 452	2.9475	0.0082	1.8429	0.0705
<i>Nova1</i>	similar to neuro-oncological ventral antigen 1 isoform 2 isoform 1	2.9406	0.0366	2.2939	0.0883
<i>Ifit1</i>	interferon-induced protein with tetratricopeptide repeats 1	2.9071	0.0045	1.0621	0.2500

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Dnah17</i>	similar to dynein, axonemal, heavy polypeptide 9 isoform 2	2.9062	0.0059	1.3548	0.1980
<i>Loc682909</i>	hypothetical protein LOC297846	2.9015	0.0287	1.6623	0.1360
<i>Loc679168</i>	hypothetical protein	2.8973	0.0282	2.6154	0.1160
<i>Galnt5</i>	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 5	2.8967	0.0024	1.7144	0.0698
<i>Kcnt2</i>	sodium- and chloride-activated ATP-sensitive potassium channel	2.8924	0.0205	1.4763	0.0871
<i>Vwa5a</i>	loss of heterozygosity, 11, chromosomal region 2, gene A homolog	2.8651	0.0329	2.4217	0.0874
<i>Shmt2</i>	serine hydroxymethyltransferase 2 (mitochondrial)	2.8618	0.0475	2.0269	0.0857
<i>Znf655</i>	vav-1 interacting Kruppel-like protein	2.8404	0.0447	1.6394	0.1290
<i>Npy2r</i>	neuropeptide Y receptor Y2	2.8243	0.0031	1.6476	0.2650
<i>Rgd1562371</i>	similar to GREB1 protein isoform a	2.8200	0.0055	2.2506	0.1350
<i>Loc365251</i>	male sterility domain containing 2	2.8193	0.0435	2.2445	0.0510
<i>Rem2</i>	GTP-binding protein REM2	2.8160	0.0392	1.9682	0.1030
<i>Rgd1564482</i>	hypothetical protein	2.8128	0.0002	1.7724	0.0611
<i>Map3k5</i>	similar to mitogen activated protein kinase kinase kinase 5	2.8094	0.0160	2.3950	0.0541
<i>Trim9</i>	tripartite motif-containing 9	2.7928	0.0414	1.9922	0.0621
<i>Enth</i>	similar to Epsin-4 (Epsin-related protein) (EpsinR) (Enthoprotin) isoform 7	2.7835	0.0458	2.1527	0.0565
<i>Nphp3</i>	similar to acyl-Coenzyme A dehydrogenase family, member 11	2.7764	0.0147	2.1768	0.0752

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Eml4</i>	similar to Echinoderm microtubule-associated protein-like 4 (EMAP-4) (Restrictedly overexpressed proliferation-associated protein) (Ropp 120)	2.7710	0.0425	1.7350	0.3290
<i>Loc686197</i>	hypothetical protein	2.7709	0.0354	3.0399	0.0680
<i>Wdr37</i>	similar to WD repeat domain 37 isoform a	2.7699	0.0332	1.5912	0.1870
<i>Znf287</i>	similar to Zinc finger protein 287 (Zfp-287) (Zinc finger protein SKAT-2)	2.7669	0.0096	1.8829	0.0503
<i>Pigk</i>	similar to ubiquitin specific protease 33	2.7650	0.0043	1.5841	0.0627
<i>Wif1</i>	Wnt inhibitory factor 1	2.7609	0.0374	2.0344	0.0647
<i>Osbpl11</i>	similar to oxysterol binding protein-like 11	2.7606	0.0397	2.1374	0.0880
<i>Agps</i>	alkyl-dihydroxyacetonephosphate synthase precursor	2.7588	0.0409	2.4835	0.0539
<i>Ddx60</i>	similar to C28H8.3	2.7516	0.0171	1.0553	0.8350
<i>Ankrd27</i>	similar to VPS9-ankyrin repeat-containing protein isoform 1	2.7476	0.0356	1.9596	0.1740
<i>Loc678897</i>	similar to G protein-coupled receptor 158 isoform a	2.7445	0.0392	2.3254	0.1280
<i>Mfsd4</i>	similar to Na ⁺ dependent glucose transporter 1	2.7273	0.0159	2.1309	0.0750
<i>Dgcr8</i>	similar to DiGeorge syndrome critical region gene 8	2.7267	0.0466	2.1770	0.0723
<i>Slc40a1</i>	solute carrier family 39 (iron-regulated transporter), member 1	2.7246	0.0312	1.8132	0.1160
<i>Csm1</i>	CUB and Sushi multiple domains 1	2.7206	0.0437	2.1148	0.2390
<i>Nrp2</i>	neuropilin 2	2.7165	0.0480	1.9252	0.0710
<i>Arhgef3</i>	similar to Rho guanine nucleotide exchange factor (GEF) 3	2.7154	0.0200	2.2391	0.0577

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Btaf1</i>	similar to TATA-binding protein-associated factor 172 (ATP-dependent helicase BTAF1) (TBP-associated factor 172) (TAF-172) (TAF(II)170) (B-TFIID transcription factor-associated 170 kDa subunit)	2.7073	0.0434	1.8254	0.1410
<i>Znf250</i>	similar to Zinc finger protein 250 (Zinc finger protein 647)	2.7028	0.0444	2.1874	0.0520
<i>Fndc3a</i>	similar to Fibronectin type-III domain-containing protein 3a	2.7002	0.0368	2.3242	0.0524
<i>Fzd6</i>	similar to frizzled 6	2.6961	0.0048	1.3162	0.1010
<i>Fam171b</i>	similar to KIAA1946	2.6929	0.0399	3.0282	0.1230
<i>Slc9a8</i>	solute carrier family 9 (sodium/hydrogen exchanger), member 8	2.6926	0.0379	2.0965	0.0950
<i>Dpy19l4</i>	similar to dpy-19-like 3	2.6844	0.0483	1.3492	0.2380
<i>Ptgr2</i>	zinc binding alcohol dehydrogenase, domain containing 1	2.6804	0.0394	2.0654	0.0534
<i>Znf23</i>	similar to zinc finger protein 612	2.6789	0.0109	2.0888	0.0627
<i>Sgk1</i>	serum/glucocorticoid regulated kinase	2.6709	0.0313	2.4687	0.2780
<i>Gsg1l</i>	similar to germ cell associated 1 (predicted)	2.6705	0.0368	2.0623	0.1850
<i>Alox5</i>	arachidonate 5-lipoxygenase	2.6697	0.0483	2.2020	0.1550
<i>Cntd1</i>	hypothetical protein	2.6697	0.0097	1.2645	0.2720
<i>Grem2</i>	similar to Gremlin-2 precursor (Cysteine knot superfamily 1, BMP antagonist 2) (Protein related to DAN and cerberus)	2.6641	0.0249	2.0659	0.1760
<i>Zfp161</i>	zinc finger protein 161	2.6452	0.0358	2.2326	0.0786
<i>Piwil2</i>	similar to piwi like homolog 2	2.6426	0.0092	1.9050	0.1160
<i>Mesdc1</i>	mesoderm development candidate 1	2.6415	0.0398	2.4007	0.2230

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Intu</i>	similar to PDZ domain containing 6	2.6352	0.0251	2.9994	0.0919
<i>Agk</i>	similar to multi-substrate lipid kinase	2.6333	0.0282	2.1774	0.0541
<i>Syt1</i>	synaptotagmin 1	2.6277	0.0231	2.2383	0.0551
<i>Lin9</i>	similar to lin-9 homolog	2.6158	0.0351	1.9248	0.2700
<i>Cd180</i>	similar to CD180 antigen precursor (Lymphocyte antigen 78) (Radioprotective 105 kDa protein)	2.6068	0.0413	2.4536	0.0771
<i>Dock8</i>	similar to dedicator of cytokinesis 8 isoform 1	2.6054	0.0373	1.6582	0.1210
<i>Dmd</i>	dystrophin isoform Dp71c	2.6033	0.0495	1.8763	0.1790
<i>Ipp</i>	similar to Actin-binding protein IPP (MIPP protein)	2.5934	0.0500	2.5094	0.0880
<i>Mrc1</i>	similar to Macrophage mannose receptor 1 precursor (MMR) (CD206 antigen)	2.5837	0.0409	1.2752	0.4360
<i>Pfkfb2</i>	6-phosphofructo-2-kinase/fructose-2, 6- bisphosphatase 2 isoform b	2.5780	0.0416	1.8859	0.0937
<i>Rgd1560083</i>	similar to myosin IIIA	2.5752	0.0426	1.6395	0.1770
<i>Pank3</i>	similar to pantothenate kinase 3	2.5736	0.0229	2.1822	0.0699
<i>Sgpl1</i>	sphingosine phosphate lyase 1	2.5513	0.0404	1.9101	0.0568
<i>Wnt5a</i>	wingless-type MMTV integration site 5A	2.5484	0.0135	1.6640	0.1190
<i>Zfp187</i>	similar to zinc finger protein 187	2.5441	0.0392	1.6187	0.1260
<i>Chrm3</i>	cholinergic receptor, muscarinic 3	2.5344	0.0166	2.1340	0.0551
<i>Loc685925</i>	similar to zinc finger protein 455	2.5306	0.0267	2.2199	0.1150
<i>Loc687801</i>	similar to serine (or cysteine) proteinase inhibitor, clade B (ovalbumin), member 6	2.5302	0.0331	1.9446	0.0764
<i>Gucy1a3</i>	guanylate cyclase 1, soluble, alpha 3	2.5264	0.0362	1.3474	0.3800
<i>Eif2ak2</i>	Protein kinase, interferon-inducible double stranded RNA dependent	2.5208	0.0130	1.4526	0.0938

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Rapgef6</i>	similar to Rap guanine nucleotide exchange factor (GEF) 6	2.5162	0.0067	2.5110	0.0564
<i>Gad2</i>	glutamate decarboxylase 2	2.4962	0.0187	2.3963	0.0907
<i>Ppat</i>	similar to Amidophosphoribosyltransferase precursor (Glutamine phosphoribosylpyrophosphate amidotransferase) (ATASE) (GPAT)	2.4682	0.0374	1.3531	0.1680
<i>Morc4</i>	similar to MORC family CW-type zinc finger 4 (Zinc finger CW-type coiled-coil domain protein 2)	2.4672	0.0264	1.5975	0.0893
<i>Snx18</i>	similar to sorting nexin associated golgi protein 1	2.4619	0.0289	1.7254	0.1120
<i>Bves</i>	blood vessel epicardial substance	2.4569	0.0059	1.4482	0.0194
<i>Mybl1</i>	similar to Myb-related protein A (A-Myb)	2.4504	0.0288	2.2339	0.1210
<i>Mgat4c</i>	similar to UDP-N-acetylglucosamine: alpha-1,3-D-mannoside beta-1,4-N-acetylglucosaminyltransferase IV	2.4473	0.0190	1.4907	0.0519
<i>Pdk4</i>	pyruvate dehydrogenate kinase 4	2.4473	0.0427	2.2918	0.0755
<i>Nod1</i>	similar to Caspase recruitment domain-containing protein 4	2.4428	0.0313	1.4495	0.0939
<i>Pcdhb6</i>	similar to protocadherin beta 6	2.4382	0.0033	0.8690	0.8730
<i>Herc6</i>	similar to hect domain and RLD 6 isoform a	2.4369	0.0442	1.2475	0.1490
<i>Rgd1560455</i>	similar to G-protein coupled purinergic receptor P2Y10	2.4344	0.0304	1.4686	0.2730
<i>Spopl</i>	similar to CG9924-PC, isoform C	2.4342	0.0367	1.8683	0.1320
<i>Znf608</i>	similar to zinc finger protein 608	2.4298	0.0168	1.7299	0.2500
<i>Rgd1306880</i>	similar to family with sequence similarity 80, member A	2.4246	0.0253	1.6530	0.1500

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		Fold Change	p-Value	Fold Change	p-Value
<i>Hfm1</i>	similar to HFM1, ATP-dependent DNA helicase homolog	2.4187	0.0352	3.5882	0.0615
<i>Rrm1-Ps1</i>	similar to ribonucleotide reductase M1	2.4171	0.0484	1.8467	0.1230
<i>Prkcq</i>	similar to Protein kinase C theta type (nPKC-theta) isoform 2	2.4112	0.0439	1.8227	0.0913
<i>Fstl5</i>	similar to follistatin-like 5	2.4087	0.0168	1.2882	0.1740
<i>Eif2ak2</i>	similar to Protein kinase, interferon-inducible double stranded RNA dependent	2.4026	0.0161	1.5595	0.0587
<i>Sync</i>	similar to syncoilin	2.4009	0.0060	1.3432	0.4820
<i>Ccdc90a</i>	hypothetical protein	2.3930	0.0474	2.1896	0.0624
<i>Itga4</i>	similar to integrin alpha 4	2.3905	0.0382	1.6421	0.1900
<i>Snap91</i>	synaptosomal-associated protein, 91kDa homolog	2.3879	0.0225	1.9893	0.0515
<i>Herc3</i>	similar to hect domain and RLD 3 isoform 2	2.3797	0.0156	1.9076	0.1140
<i>Aldh3b1</i>	fatty aldehyde dehydrogenase-like	2.3786	0.0323	1.6525	0.1850
<i>Dck</i>	deoxycytidine kinase	2.3720	0.0295	1.4542	0.3410
<i>Manba</i>	mannosidase, beta A, lysosomal	2.3719	0.0362	1.8446	0.1390
<i>Myadml2</i>	similar to myeloid-associated differentiation marker	2.3703	0.0099	1.7456	0.1050
<i>Dnajb7</i>	similar to DnaJ homolog subfamily B member 7 (mDJ5)	2.3667	0.0101	1.4440	0.1330
<i>Pcdha6</i>	protocadherin alpha subfamily C, 1	2.3659	0.0066	1.6863	0.0623
<i>Fam98a</i>	hypothetical protein LOC313873	2.3654	0.0499	1.9572	0.0810
<i>Slc39a12</i>	similar to solute carrier family 39 (zinc transporter), member 12	2.3614	0.0094	0.5863	0.1250
<i>Tmc7</i>	similar to Tmc7 protein	2.3528	0.0471	1.8373	0.0832
<i>Slc39a10</i>	similar to solute carrier family 39 (zinc transporter), member 10	2.3508	0.0486	1.9542	0.2600

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Rgd1309870</i>	hypothetical protein	2.3493	0.0055	1.2390	0.5380
<i>Elf1</i>	E74-like factor 1	2.3385	0.0367	1.9762	0.1010
<i>Dhx57</i>	similar to DEAH (Asp-Glu-Ala-Asp/His) box polypeptide 57 homolog	2.3378	0.0256	1.8544	0.0526
<i>Snrpa</i>	small nuclear ribonucleoprotein polypeptide A	2.3329	0.0202	1.8065	0.0918
<i>Slc19a3</i>	similar to solute carrier family 19 (sodium/hydrogen exchanger), member 3	2.3292	0.0238	2.0546	0.0598
<i>Slc25a39</i>	hypothetical protein LOC360636	2.3260	0.0492	2.3619	0.0559
<i>Lyn</i>	Yamaguchi sarcoma viral (v-yes-1) oncogene homolog	2.3202	0.0335	1.8554	0.0561
<i>Loc678774</i>	similar to TBC1 domain family member 22A	2.3121	0.0402	1.6278	0.0537
<i>Slc16a1</i>	solute carrier family 16 (monocarboxylic acid transporters), member 1	2.3076	0.0240	1.6957	0.0894
<i>Cdc14a</i>	similar to Dual specificity protein phosphatase CDC14A (CDC14 cell division cycle 14 homolog A) isoform 3	2.3072	0.0155	1.5647	0.1030
<i>Slitrk2</i>	similar to SLIT and NTRK-like protein 2 precursor	2.3062	0.0359	1.3884	0.0948
<i>Zcchc16</i>	similar to zinc finger, CCHC domain containing 5	2.2977	0.0203	1.4761	0.0460
<i>Zfp382</i>	KRAB/zinc finger suppressor protein 1	2.2973	0.0442	1.8842	0.1040
<i>Retsat</i>	all-trans-13,14-dihydroretinol saturase	2.2892	0.0050	1.7061	0.1240
<i>A3galt2</i>	iGb3 synthase	2.2866	0.0324	1.4335	0.5490
<i>Slc22a23</i>	similar to ion transporter protein	2.2862	0.0134	1.6764	0.0744
<i>Srgap1</i>	similar to SLIT-ROBO Rho GTPase-activating protein 1	2.2860	0.0484	1.8119	0.1300
<i>Loc682206</i>	similar to Zinc finger protein 208	2.2791	0.0481	1.3356	0.1110

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		Fold Change	p-Value	Fold Change	p-Value
<i>Sema3c</i>	similar to semaphorin 3C	2.2759	0.0355	1.6463	0.4120
<i>Fam169a</i>	hypothetical protein	2.2742	0.0488	1.6788	0.1740
<i>Cyp4a8</i>	cytochrome P450 4X1	2.2650	0.0352	1.8167	0.0785
<i>Parp11</i>	similar to poly (ADP-ribose) polymerase family, member 11	2.2547	0.0253	1.7969	0.3910
<i>Loc683571</i>	similar to regulator of sex-limitation candidate 11 isoform a	2.2532	0.0470	1.6708	0.0706
<i>Rundc1</i>	similar to RUN domain containing 1	2.2491	0.0314	1.8428	0.0658
<i>Hmgcs1</i>	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1	2.2458	0.0055	1.6693	0.2270
<i>Pus7l</i>	similar to CG6745-PA	2.2447	0.0204	1.8761	0.0996
<i>Rgn</i>	regucalcin	2.2430	0.0042	1.9162	0.0600
<i>Rgd1307158</i>	similar to oocyte-testis gene 1	2.2380	0.0188	1.4558	0.0805
<i>Rdh5</i>	similar to retinol dehydrogenase 5	2.2354	0.0014	1.8718	0.1550
<i>Hs6st2</i>	similar to Heparan-sulfate 6-O-sulfotransferase 2 (HS6ST-2) isoform 1	2.2328	0.0383	1.2757	0.2290
<i>Loc691700</i>	similar to heparan sulfate D-glucosaminyl 3-O-sulfotransferase 4	2.2282	0.0296	1.3045	0.2870
<i>Rgd1561958</i>	similar to Meprin A beta-subunit precursor (Endopeptidase-2) (N-benzoyl-L-tyrosyl-P-amino-benzoic acid hydrolase beta subunit) (PABA peptide hydrolase) (PPH beta)	2.2195	0.0306	1.1808	0.0946
<i>Zzz3</i>	similar to zinc finger, ZZ domain containing 3	2.2183	0.0399	1.4708	0.2410
<i>Rhobtb3</i>	similar to Rho-related BTB domain containing 3	2.2159	0.0360	1.6736	0.0831

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		Fold Change	p-Value	Fold Change	p-Value
<i>Cenpi</i>	follicle-stimulating hormone primary response protein 1	2.2051	0.0109	1.6923	0.0742
<i>Loc685067</i>	similar to guanylate binding protein 4-like	2.2017	0.0408	0.8567	0.2360
<i>Shq1</i>	similar to SHQ1 homolog	2.2016	0.0298	2.3133	0.0847
<i>Mtmr6</i>	similar to myotubularin related protein 6	2.1982	0.0246	1.7631	0.1250
<i>Drd1a</i>	dopamine receptor 1A	2.1917	0.0077	1.1940	0.1740
<i>Apaf1</i>	apoptotic peptidase activating factor 1	2.1878	0.0395	1.8393	0.1440
<i>Ncaph</i>	similar to Condensin complex subunit 2 (Barren homolog protein 1) (Chromosome-associated protein H) (mCAP-H) (XCAP-H homolog)	2.1872	0.0449	1.1710	0.8930
<i>Ptprk</i>	protein tyrosine phosphatase, receptor type, K, extracellular region	2.1829	0.0109	1.5682	0.1530
<i>Mapk6</i>	mitogen-activated protein kinase 6	2.1826	0.0335	1.9961	0.0652
<i>Adamts9</i>	similar to ADAM metallopeptidase with thrombospondin type 1 motif, 9 preproprotein	2.1818	0.0334	1.7425	0.1860
<i>Pemt</i>	phosphatidylethanolamine N-methyltransferase	2.1768	0.0214	1.9576	0.0936
<i>Txnrd3</i>	similar to thioredoxin reductase 3	2.1725	0.0370	1.7153	0.0602
<i>Mpp3</i>	similar to palmitoylated membrane protein 3	2.1721	0.0474	1.9200	0.0946
<i>Mei1</i>	hypothetical protein	2.1664	0.0196	1.7268	0.1370
<i>Ankrd13c</i>	similar to ankyrin repeat domain 13c	2.1651	0.0458	1.2217	0.1170
<i>Crks</i>	CDC2-related kinase 7 isoform 2	2.1638	0.0408	1.8767	0.0536
<i>Calu</i>	calumenin	2.1592	0.0427	1.9062	0.0625
<i>Gpr155</i>	similar to Protein GPR155 (G-protein coupled receptor PGR22)	2.1559	0.0467	1.5392	0.1490
<i>Asah2</i>	N-acylsphingosine amidohydrolase 2	2.1523	0.0262	1.4326	0.0818

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		Fold Change	p-Value	Fold Change	p-Value
<i>Rgd1309870</i>	hypothetical protein	2.1522	0.0415	1.5219	0.8180
<i>Fktn</i>	similar to Fukuyama type congenital muscular dystrophy homolog	2.1509	0.0386	1.8613	0.1090
<i>Lenep</i>	lens epithelial protein	2.1477	0.0293	1.8336	0.1030
<i>Rxrg</i>	retinoid X receptor gamma	2.1454	0.0429	1.4579	0.2280
<i>Ddhd2</i>	similar to DDHD domain containing 2	2.1430	0.0464	1.4869	0.1010
<i>Supt16h</i>	similar to suppressor of Ty 16 homolog	2.1419	0.0398	1.8548	0.1400
<i>Camk2d</i>	calcium/calmodulin-dependent protein kinase II, delta	2.1412	0.0321	1.9650	0.0783
<i>Loc503192</i>	similar to zinc finger protein ZFP	2.1282	0.0329	1.2637	0.2060
<i>Loc498735</i>	similar to Protein C6orf146 homolg	2.1263	0.0240	1.2643	0.4210
<i>Slc37a3</i>	similar to solute carrier family 37 (glycerol-3-phosphate transporter), member 3	2.1252	0.0461	1.5444	0.1700
<i>Zswim2</i>	zinc finger, SWIM domain containing 2	2.1227	0.0309	1.5872	0.0503
<i>Rngtt</i>	similar to mRNA capping enzyme (HCE) (MCE1)	2.1112	0.0227	2.2196	0.0530
<i>Slc30a4</i>	solute carrier family 30 (zinc transporter), member 4	2.1087	0.0203	1.3497	0.2340
<i>Vom2r-Ps24</i>	similar to zinc finger protein 665	2.1076	0.0378	1.8848	0.0612
<i>Mgc124740</i>	similar to Rap2-binding protein 9 isoform 1	2.1059	0.0280	1.2818	0.0874
<i>Myo9a</i>	myosin IXA	2.1054	0.0463	2.0271	0.0751
<i>Loc679127</i>	similar to Protein KIAA0690	2.0989	0.0262	1.6063	0.0672
<i>Grid2</i>	glutamate receptor, ionotropic, delta 2	2.0972	0.0300	1.8517	0.0632
<i>Pcdhga2</i>	protocadherin gamma A2	2.0924	0.0152	1.5410	0.0697
<i>Loc688270</i>	similar to X-linked lymphocyte-regulated protein 3A (XLR-related protein A12)	2.0911	0.0052	1.5024	0.0877
<i>G2e3</i>	similar to PHD finger protein 7 (predicted)	2.0859	0.0198	1.3798	0.1140

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		Fold Change	p-Value	Fold Change	p-Value
<i>Anapc1</i>	similar to Anaphase-promoting complex subunit 1 (APC1) (Cyclosome subunit 1) (Protein Tsg24) (Mitotic checkpoint regulator)	2.0835	0.0351	1.3735	0.2150
<i>Slc9a4</i>	solute carrier family 9, member 4	2.0834	0.0398	1.6668	0.2790
<i>Afaf</i>	acrosome formation associated factor	2.0556	0.0326	1.2071	0.2150
<i>Rap2b</i>	RAP2B, member of RAS oncogene family	2.0542	0.0366	1.2451	0.5900
<i>Dnajc11</i>	similar to DnaJ (Hsp40) homolog, subfamily C, member 11	2.0412	0.0369	1.4732	0.0688
<i>Scrn3</i>	secernin 3	2.0399	0.0179	1.3921	0.0600
<i>Tnrc6a</i>	similar to trinucleotide repeat containing 6A isoform 2	2.0399	0.0336	2.5732	0.0776
<i>Rfwd3</i>	similar to mixed lineage kinase domain-like	2.0391	0.0122	1.4305	0.0831
<i>ErbB4</i>	v-erb-a erythroblastic leukemia viral oncogene homolog 4	2.0343	0.0368	1.3782	0.1090
<i>Crk</i>	v-crK sarcoma virus CT10 oncogene homolog	2.0317	0.0247	1.5455	0.1650
<i>Tle4</i>	transducin-like enhancer protein 4	2.0296	0.0242	1.4966	0.2240
<i>Loc685616</i>	similar to ankyrin repeat domain 26	2.0277	0.0317	1.8276	0.0588
<i>Zfp263</i>	similar to zinc finger protein 263	2.0241	0.0298	1.5545	0.1050
<i>Rabgap1</i>	similar to RAB GTPase activating protein 1 isoform a	2.0239	0.0439	1.6280	0.1110
<i>Ccdc73</i>	similar to T07C4.10	2.0236	0.0208	1.7634	0.0577
<i>Loc501038</i>	hypothetical protein LOC501038	2.0171	0.0099	1.4680	0.0974
<i>Phka1</i>	phosphorylase kinase alpha 1	2.0150	0.0289	1.4807	0.1070
<i>Stil</i>	similar to Tal1 interrupting locus	2.0125	0.0435	1.5075	0.1690
<i>Raver2</i>	similar to raver2	2.0121	0.0223	1.4776	0.0454
<i>Slc4a8</i>	Na-driven Cl-HCO ₃ exchanger NDCBE1-A	2.0089	0.0130	1.8180	0.0843

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		Fold Change	p-Value	Fold Change	p-Value
<i>Loc688146</i>	similar to radical S-adenosyl methionine domain containing 1	2.0081	0.0438	1.8330	0.1950
<i>Loc306096</i>	similar to dachshund homolog 1 isoform a isoform 4	2.0081	0.0250	1.8402	0.0586
<i>Pex11g</i>	similar to peroxisomal biogenesis factor 11c	2.0080	0.0122	1.3444	0.0886
<i>Arntl2</i>	similar to aryl hydrocarbon receptor nuclear translocator-like 2	2.0031	0.0222	1.7226	0.8900
<i>Stk17b</i>	serine/threonine kinase 17b (apoptosis-inducing)	1.9963	0.0488	1.2806	0.0823
<i>Ogt</i>	O-linked N-acetylglucosamine transferase	1.9889	0.0337	1.3559	0.1950
<i>Atp6v1a</i>	similar to ATPase, H ⁺ transporting, V1 subunit A, isoform 1 isoform 1	1.9858	0.0360	1.7189	0.2110
<i>Ercc6</i>	similar to DNA excision repair protein ERCC-6 (ATP-dependent helicase ERCC6) (Cockayne syndrome protein CSB)	1.9798	0.0180	1.6541	0.3120
<i>Rgd1306816</i>	similar to Unc-112-related protein 1 (Kindlin-1) isoform 1	1.9778	0.0072	0.9792	0.2970
<i>Kcnq5l</i>	similar to potassium voltage-gated channel, subfamily Q, member 5	1.9752	0.0072	1.6438	0.1110
<i>Herc3</i>	similar to hect domain and RLD 3 isoform 1	1.9733	0.0042	1.6364	0.0518
<i>Oas1b</i>	25 oligoadenylate synthetase-2	1.9717	0.0031	1.2703	0.6130
<i>Hmgcr</i>	3-hydroxy-3-methylglutaryl-Coenzyme A reductase	1.9704	0.0312	1.4114	0.3670
<i>Trim32</i>	tripartite motif protein 32	1.9696	0.0417	1.5938	0.0889
<i>Oasl</i>	2'-5' oligoadenylate synthetase-like 1	1.9673	0.0061	1.0347	0.9250
<i>Cdyl</i>	hypothetical LOC361237	1.9656	0.0419	1.8901	0.0590

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Hkr3</i>	similar to Krueppel-related zinc finger protein 3 (HKR3 protein) isoform 1	1.9598	0.0467	1.6500	0.1550
<i>Ireb2</i>	iron responsive element binding protein 2	1.9559	0.0471	1.1037	0.1890
<i>Loc367782</i>	similar to transcription elongation factor A (SII), 3 (predicted)	1.9525	0.0379	1.7917	0.0521
<i>Tatdn2</i>	similar to TatD DNase domain containing 2	1.9508	0.0485	1.5000	0.1100
<i>Tecta</i>	similar to Alpha-tectorin precursor	1.9499	0.0414	1.4446	0.0942
<i>Emid1</i>	similar to EMI domain containing 1	1.9432	0.0328	1.5929	0.1040
<i>Rgd1560603</i>	similar to mitogen-activated protein kinase kinase kinase 5	1.9366	0.0082	1.4849	0.0889
<i>Seli</i>	similar to Selenoprotein I	1.9364	0.0445	1.2144	0.1420
<i>Pclo</i>	multidomain presynaptic cytomatrix protein Piccolo	1.9353	0.0046	1.5872	0.0606
<i>Cdc25c</i>	similar to M-phase inducer phosphatase 3 (Dual specificity phosphatase Cdc25C)	1.9352	0.0036	1.2476	0.0598
<i>Pcdhb13</i>	similar to protocadherin beta 13	1.9340	0.0442	1.4972	0.0854
<i>Kif4</i>	similar to Chromosome-associated kinesin KIF4A (Chromokinesin)	1.9306	0.0255	1.4695	0.0498
<i>Xylb</i>	xylulokinase homolog (H. influenzae)	1.9305	0.0392	1.2016	0.1880
<i>Zfp709</i>	zinc finger protein 14 (KOX 6)	1.9262	0.0170	1.2122	0.1400
<i>Loc682927</i>	similar to zinc finger protein 748 isoform 1	1.9262	0.0203	1.3392	0.0610
<i>Zkscan1</i>	hypothetical protein LOC498160	1.9253	0.0248	1.1387	0.5280
<i>Asb11</i>	similar to Ankyrin repeat and SOCS box protein 11 (ASB-11)	1.9243	0.0103	1.2617	0.3610
<i>Tbr1</i>	similar to T-box brain gene 1 isoform 1	1.9242	0.0292	1.5054	0.0996
<i>Gsr</i>	glutathione reductase	1.9222	0.0466	1.6755	0.0635
<i>Mx1</i>	myxovirus (influenza virus) resistance 1	1.9145	0.0124	0.9657	0.3650

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Gfpt2</i>	glutamine-fructose-6-phosphate transaminase 2	1.9134	0.0328	1.6924	0.1170
<i>Mcf2</i>	similar to mcf.2 transforming	1.9133	0.0374	1.3513	0.0734
<i>Rgd1560958</i>	similar to family with sequence similarity 24, member A	1.9115	0.0073	1.3946	0.1290
<i>Eif2b5</i>	eukaryotic translation initiation factor 2B, subunit 5 epsilon	1.9110	0.0394	1.7231	0.0504
<i>Gabbr2</i>	G protein-coupled receptor 51	1.9107	0.0386	1.4516	0.0982
<i>Mgea5</i>	meningioma expressed antigen 5 (hyaluronidase)	1.9099	0.0338	1.3738	0.1170
<i>Aldh6a1</i>	aldehyde dehydrogenase family 6, subfamily A1	1.9083	0.0275	1.7138	0.0641
<i>Mycbpap</i>	Mycbp associated protein	1.9057	0.0062	1.6269	0.1080
<i>Ddx3x</i>	similar to ATP-dependent RNA helicase DDX3X (DEAD box protein 3, X-chromosomal) (DEAD box RNA helicase DEAD3) (mDEAD3) (Embryonic RNA helicase) (D1Pas1-related sequence 2)	1.9047	0.0458	1.3365	0.3860
<i>Sfxn1</i>	sideroflexin 1	1.9019	0.0302	1.6272	0.0518
<i>Wsb1</i>	WD repeat and SOCS box-containing 1 isoform 1	1.9002	0.0249	1.2302	0.1980
<i>Loc306096</i>	similar to Dachshund homolog 1 (Dach1) isoform 3	1.9001	0.0269	1.9440	0.0974
<i>Plekhh2</i>	similar to pleckstrin homology domain containing, family H (with MyTH4 domain) member 2	1.9000	0.0152	1.6389	0.1360
<i>Sh3d19</i>	similar to SH3 domain protein D19	1.8946	0.0281	1.4055	0.1050
<i>Atf2</i>	activating transcription factor 2	1.8901	0.0454	1.5011	0.2290

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Rgd1561539</i>	similar to distal-less homeobox 6	1.8802	0.0137	1.5561	0.0677
<i>Nrxn3</i>	neurexin 3	1.8772	0.0130	1.7640	0.0554
<i>Aspdh</i>	hypothetical protein LOC292875	1.8743	0.0116	1.2787	0.1040
<i>Loc690963</i>	hypothetical protein	1.8722	0.0337	2.0698	0.0683
<i>Rgd1560736</i>	similar to Sodium/hydrogen exchanger 9 (Na(+)/H(+) exchanger 9) (NHE-9) (Solute carrier family 9 member 9)	1.8712	0.0359	1.5223	0.0780
<i>Nrg3</i>	similar to neuregulin 3	1.8710	0.0308	1.2874	0.1030
<i>Nell1</i>	NEL-like 1	1.8707	0.0216	1.4754	0.0884
<i>Ogfod1</i>	similar to CG31120-PA, isoform A	1.8702	0.0390	1.8162	0.0587
<i>Zcchc5</i>	similar to zinc finger, CCHC domain containing 5	1.8641	0.0339	1.6906	0.2240
<i>Gabra6</i>	gamma-aminobutyric acid A receptor, alpha 6	1.8519	0.0208	1.3479	0.6090
<i>Rgd1564786</i>	similar to serine (or cysteine) proteinase inhibitor, clade B, member 6b (predicted)	1.8516	0.0218	1.1086	0.3830
<i>Loc689444</i>	hypothetical protein	1.8502	0.0360	0.9899	0.7310
<i>Loc691448</i>	similar to solute carrier family 25 member 24 isoform 1	1.8460	0.0449	1.1542	0.5010
<i>Syngr4</i>	synaptogyrin 4	1.8456	0.0248	1.7226	0.2280
<i>Oas1a</i>	2',5'-oligoadenylate synthetase 1, 40/46kDa	1.8456	0.0039	1.2721	0.9200
<i>Dbnnd1</i>	hypothetical protein LOC361437	1.8438	0.0142	1.5883	0.0568
<i>Apol9a</i>	hypothetical protein LOC503164	1.8427	0.0106	0.9429	0.4520
<i>Atrnl1</i>	similar to attractin-like 1	1.8419	0.0393	1.4102	0.1460
<i>Loc365985</i>	similar to adenylate kinase 5 isoform 1	1.8391	0.0495	1.8447	0.0756
<i>Loc498752</i>	similar to dynactin subunit p62	1.8346	0.0093	1.4851	0.1040

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Parp14</i>	similar to poly (ADP-ribose) polymerase family, member 14	1.8340	0.0370	1.3588	0.4770
<i>Gmfb</i>	glia maturation factor, beta	1.8301	0.0409	1.7641	0.0835
<i>Zfp192</i>	similar to zinc finger protein 192	1.8292	0.0255	1.6055	0.2630
<i>Synj1</i>	similar to Synaptojanin-1 (Synaptic inositol-1,4,5-trisphosphate 5-phosphatase 1)	1.8237	0.0028	1.4085	0.0386
<i>Ubr7</i>	hypothetical protein LOC314399	1.8207	0.0398	1.7489	0.0569
<i>Tubgcp3</i>	similar to tubulin, gamma complex associated protein 3	1.8205	0.0475	1.6826	0.1600
<i>Taf2</i>	similar to TBP-associated factor 2	1.8179	0.0176	1.1969	0.1240
<i>Ifnar1</i>	similar to Interferon-alpha/beta receptor alpha chain precursor (IFN-alpha-REC)	1.8174	0.0384	1.6319	0.0669
<i>Steap4</i>	hypothetical protein LOC499991	1.8154	0.0108	1.4944	0.2370
<i>Necab2</i>	neuronal calcium-binding protein 2	1.8145	0.0490	1.7234	0.0616
<i>Stxbp5</i>	tomosyn isoform m	1.8144	0.0227	1.5725	0.1640
<i>Bbs9</i>	similar to parathyroid hormone-responsive B1 gene isoform 2	1.8125	0.0355	1.5482	0.1110
<i>Magi1</i>	membrane associated guanylate kinase 1 b NT-short isoform	1.8125	0.0281	1.5696	0.1280
<i>Rad51</i>	similar to DNA repair protein RAD51 homolog 1	1.8100	0.0196	1.7413	0.0570
<i>Ncoa4</i>	nuclear receptor coactivator 4	1.8089	0.0260	1.2554	0.4120
<i>Dusp5</i>	dual specificity phosphatase 5	1.8068	0.0111	1.4392	0.0265
<i>Rgd1564200</i>	similar to CG10657-PA isoform 1	1.8043	0.0466	1.3448	0.2730
<i>Rgd1560892</i>	nuclear autoantigenic sperm protein	1.7993	0.0217	1.3964	0.2120
<i>Lrp11</i>	hypothetical protein	1.7991	0.0258	1.4555	0.0814

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc689873</i>	similar to Histone-lysine N-methyltransferase, H3 lysine-9 specific 4 (Histone H3-K9 methyltransferase 4) (H3-K9-HMTase 4) (SET domain bifurcated 1) (ERG-associated protein with SET domain) (ESET)	1.7980	0.0296	1.6158	0.1510
<i>Galc</i>	galactosylceramidase	1.7979	0.0489	1.0628	0.5100
<i>Rgd1559496</i>	similar to T19B10.6	1.7968	0.0292	1.5844	0.1130
<i>Loc683955</i>	similar to Feline leukemia virus subgroup C receptor-related protein 1 (Feline leukemia virus subgroup C receptor) (hFLVCR)	1.7933	0.0459	1.0244	0.2190
<i>Pik3c3</i>	phosphoinositide-3-kinase, class 3	1.7922	0.0127	1.3358	0.2340
<i>Nfe2l3</i>	similar to Nuclear factor erythroid 2-related factor 3 (NF-E2-related factor 3) (NFE2-related factor 3) (Nuclear factor, erythroid derived 2, like 3)	1.7906	0.0299	1.4648	0.1020
<i>Far2</i>	similar to male sterility domain containing 1	1.7897	0.0269	1.5366	0.0937
<i>Rabif</i>	RAB-interacting factor	1.7892	0.0461	1.2250	0.1900
<i>Loc499110</i>	similar to Zinc finger protein 354A (Transcription factor 17) (Renal transcription factor Kid-1) (Kidney, ischemia, and developmentally regulated protein 1)	1.7890	0.0185	1.3557	0.1670
<i>Tacr2</i>	tachykinin receptor 2	1.7886	0.0121	1.2930	0.0804
<i>Fgf14</i>	fibroblast growth factor 14	1.7882	0.0181	1.3031	0.2070
<i>Bbs9</i>	similar to parathyroid hormone-responsive B1 gene isoform 1	1.7872	0.0442	1.6303	0.1130
<i>Rgd1304592</i>	similar to CG6454-PB, isoform B	1.7801	0.0399	1.7371	0.0858

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Zfp318</i>	similar to zinc finger protein 318 isoform 1	1.7797	0.0388	1.1071	0.2260
<i>Loc691889</i>	similar to ATPase, aminophospholipid transporter-like, class I, type 8A, member 2 isoform 2	1.7754	0.0196	1.2397	0.1240
<i>Gjb3</i>	gap junction membrane channel protein beta 3	1.7747	0.0221	1.3628	0.2980
<i>Errfi1</i>	mitogen-inducible gene 6 protein	1.7740	0.0491	1.4924	0.1110
<i>Cflar</i>	CASP8 and FADD-like apoptosis regulator isoform 1	1.7733	0.0243	1.4308	0.0657
<i>Mme</i>	membrane metallo endopeptidase	1.7730	0.0448	1.3249	0.0937
<i>Trim37</i>	similar to tripartite motif protein 37 isoform 1	1.7712	0.0159	1.4563	0.0546
<i>Egf</i>	epidermal growth factor	1.7692	0.0188	1.1919	0.4080
<i>Eno1-Ps1</i>	similar to Alpha-enolase (2-phospho-D-glycerate hydro-lyase) (Non-neural enolase) (NNE) (Enolase 1)	1.7679	0.0162	1.2220	0.0890
<i>Rgd1565775</i>	hypothetical protein	1.7678	0.0349	1.5686	0.0610
<i>Heatr7b2</i>	similar to 3-oxoacid CoA transferase 1 isoform 1	1.7667	0.0175	1.4391	0.0709
<i>Loc683538</i>	similar to metaxin 3	1.7663	0.0389	1.0411	0.3730
<i>Myo1b</i>	myosin Ib	1.7626	0.0473	1.0740	0.1280
<i>Pxdn</i>	similar to peroxidase	1.7610	0.0148	1.4968	0.0827
<i>Sec16b</i>	leucine zipper transcription regulator 2	1.7526	0.0343	1.3486	0.1700
<i>Tle1</i>	similar to transducin-like enhancer protein 1	1.7494	0.0397	1.3636	0.2400
<i>Loc682927</i>	similar to zinc finger protein 748 isoform 1	1.7469	0.0460	1.0800	0.7340
<i>Gpr165</i>	similar to G protein-coupled receptor 83	1.7443	0.0099	0.9652	0.6570
<i>Ened</i>	hypothetical protein LOC310540	1.7396	0.0364	1.1130	0.4060

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Emd</i>	emerin	1.7396	0.0420	1.6999	0.1200
<i>Loc683655</i>	similar to ADAM 22 precursor (A disintegrin and metalloproteinase domain 22)	1.7372	0.0389	1.5272	0.1800
<i>Cugbp2</i>	CUG triplet repeat, RNA binding protein 2 isoform 1	1.7343	0.0270	1.4623	0.0564
<i>Zfp12</i>	similar to zinc finger protein 12	1.7328	0.0187	1.4228	0.0534
<i>Tbc1d2b</i>	similar to ZK1248.10	1.7308	0.0474	1.3071	0.1290
<i>Cenpf</i>	similar to centromere protein F (350/400kD)	1.7306	0.0395	1.3731	0.1770
<i>Ppef2</i>	similar to Serine/threonine-protein phosphatase with EF-hands 2 (PPEF-2)	1.7288	0.0314	1.3667	0.6880
<i>Loc684317</i>	hypothetical protein	1.7281	0.0088	0.6487	0.0602
<i>Loc683415</i>	similar to adrenal mitochondrial protease	1.7218	0.0403	1.1494	0.2820
<i>Pcdh20</i>	similar to protocadherin 20	1.7203	0.0252	1.1779	0.2450
<i>Gphn</i>	gephyrin	1.7195	0.0312	1.3620	0.0848
<i>Gimap8</i>	GTPase, IMAP family member 8	1.7190	0.0345	1.4798	0.1120
<i>Ptpro</i>	receptor-type protein tyrosine phosphatase D30	1.7170	0.0225	1.2882	0.1300
<i>Ttc39a</i>	similar to C32D5.6	1.7155	0.0324	1.8078	0.0503
<i>Casc5</i>	similar to cancer susceptibility candidate 5 isoform 1	1.7088	0.0194	1.2008	0.2490
<i>Cdca71</i>	similar to transcription factor RAM2	1.7080	0.0160	1.2378	0.7870
<i>Neil2</i>	similar to nei like 2	1.7041	0.0236	1.5668	0.3820

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Ncoa3</i>	similar to Nuclear receptor coactivator 3 (NCoA-3) (Thyroid hormone receptor activator molecule 1) (TRAM-1) (ACTR) (Receptor-associated coactivator 3) (RAC-3) (Amplified in breast cancer-1 protein homolog) (AIB-1) (Steroid receptor coactivator prot...	1.7032	0.0417	1.5022	0.1260
<i>Prpf4</i>	similar to PRP4 pre-mRNA processing factor 4 homolog	1.6996	0.0390	1.6315	0.0611
<i>Rrp9</i>	similar to U3 snoRNP-associated protein	1.6994	0.0405	1.4804	0.1040
<i>Pcdha6</i>	protocadherin alpha 6	1.6971	0.0040	1.1817	0.2050
<i>Tmem116</i>	hypothetical protein isoform 1	1.6938	0.0472	1.7265	0.1100
<i>Cpeb1</i>	similar to cytoplasmic polyadenylation element-binding protein	1.6935	0.0403	1.4368	0.1040
<i>Ska1</i>	hypothetical protein	1.6905	0.0224	1.3266	0.2560
<i>Zkscan2</i>	similar to zinc finger protein 694	1.6831	0.0097	1.0182	0.5910
<i>Lrrc66</i>	hypothetical protein LOC289587	1.6764	0.0109	1.3515	0.1150
<i>Daam1</i>	similar to Disheveled-associated activator of morphogenesis 1	1.6736	0.0254	1.1985	0.1690
<i>Spopl</i>	similar to CG9924-PC, isoform C	1.6722	0.0484	1.5741	0.1720
<i>Arid4b</i>	AT rich interactive domain 4B (Rbp1 like)	1.6683	0.0413	1.0610	0.2280
<i>Kcnk10</i>	potassium channel, subfamily K, member 10	1.6676	0.0235	1.2600	0.1420
<i>Phkb</i>	phosphorylase kinase beta	1.6649	0.0409	1.2503	0.2000
<i>Cmpk2</i>	similar to thymidylate kinase family LPS-inducible member	1.6647	0.0138	1.3101	0.1060
<i>Rgd1310950</i>	similar to calmodulin regulated spectrin-associated protein 1-like 1 isoform 1	1.6599	0.0362	1.3090	0.4350

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Pcdha5</i>	cadherin-related neuronal receptor 5	1.6576	0.0448	1.4070	0.6930
<i>Pfkfb2</i>	6-phosphofructo-2-kinase/fructose-2, 6-bisphosphatase 2 isoform a	1.6565	0.0329	1.9591	0.0578
<i>Pion</i>	hypothetical protein	1.6559	0.0432	1.0279	0.5130
<i>Hells</i>	similar to helicase, lymphoid specific	1.6513	0.0358	1.1909	0.0911
<i>Rgd1562646</i>	similar to chromosome condensation protein G	1.6487	0.0484	1.2660	0.0533
<i>Akap3</i>	A-kinase anchor protein 3	1.6478	0.0488	1.2024	0.4270
<i>Ifit2</i>	interferon-induced protein with tetratricopeptide repeats 2	1.6469	0.0358	1.0634	0.4710
<i>Rgd1560671</i>	similar to zinc finger protein 447	1.6468	0.0151	1.0418	0.2540
<i>Pcdhb4</i>	similar to protocadherin beta 4	1.6370	0.0203	1.2124	0.3700
<i>Loc681873</i>	hypothetical protein	1.6359	0.0197	1.2440	0.2820
<i>Ska3</i>	hypothetical protein	1.6334	0.0079	1.5109	0.1170
<i>Tnpo3</i>	similar to Transportin 3	1.6320	0.0460	1.2294	0.1730
<i>Dbf4</i>	similar to activator of S phase kinase	1.6302	0.0360	1.2612	0.0384
<i>Bmp4</i>	bone morphogenetic protein 4	1.6294	0.0432	2.0754	0.0603
<i>Rgd1565082</i>	similar to Protein C14orf102 homolog	1.6291	0.0329	1.3401	0.0521
<i>Slc6a11</i>	solute carrier family 6 (neurotransmitter transporter, GABA), member 11	1.6281	0.0464	1.4707	0.0600
<i>Pcdhb11</i>	similar to protocadherin beta 11	1.6233	0.0192	1.3270	0.2450
<i>Plce1</i>	phospholipase C, epsilon 1	1.6231	0.0457	1.0805	0.2310
<i>Sgms1</i>	phosphatidylcholine:ceramide cholinephosphotransferase 1	1.6227	0.0499	1.2146	0.3970
<i>Prkaa1</i>	protein kinase, AMP-activated, alpha 1 catalytic subunit	1.6219	0.0471	1.1208	0.2710
<i>Kpna3</i>	karyopherin (importin) alpha 3	1.6208	0.0469	1.2187	0.1130
<i>Rgd1563020</i>	similar to Ptc-related CG11212-PA	1.6198	0.0402	0.9374	0.3380

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Sec23a</i>	similar to Protein transport protein Sec23A (SEC23-related protein A)	1.6172	0.0419	1.0389	0.3220
<i>Smad5</i>	SMAD, mothers against DPP homolog 5	1.6164	0.0344	1.4689	0.0573
<i>Crispld1</i>	similar to cocoacrisp	1.6164	0.0365	1.1156	0.2220
<i>Rdh12</i>	similar to Retinol dehydrogenase 12	1.6161	0.0420	1.8236	0.0871
<i>Dnm1l</i>	dynamamin 1-like	1.6138	0.0349	1.1375	0.2890
<i>Gnptab</i>	similar to N-acetylglucosamine-1-phosphate transferase	1.6121	0.0152	1.2254	0.1650
<i>Gabra4</i>	gamma-aminobutyric acid (GABA-A) receptor, subunit alpha 4	1.6077	0.0326	1.1847	0.0801
<i>Ankrd13c</i>	similar to ankyrin repeat domain 13c	1.6077	0.0246	1.1998	0.2220
<i>Ppfbp1</i>	similar to PTPRF interacting protein, binding protein 1 (liprin beta 1)	1.6070	0.0444	1.1593	0.5360
<i>Tmem87a</i>	similar to CG17660-PA	1.6064	0.0459	1.2952	0.0943
<i>Taf9b</i>	TAF9-like RNA polymerase II, TATA box binding protein (TBP)-associated factor, 31kDa	1.6059	0.0261	1.2451	0.0860
<i>Mboat1</i>	similar to O-acyltransferase (membrane bound) domain containing 1	1.6059	0.0111	1.5242	0.2550
<i>Wdr37</i>	similar to WD repeat domain 37 isoform a	1.5994	0.0283	1.6000	0.1320
<i>Rgd1308005</i>	hypothetical protein LOC502894	1.5987	0.0440	1.2075	0.3880
<i>Canx</i>	calnexin	1.5951	0.0429	1.5929	0.1000
<i>Abce1</i>	similar to ATP-binding cassette sub-family E member 1 (RNase L inhibitor) (Ribonuclease 4 inhibitor) (RNS4I)	1.5939	0.0472	1.1089	0.1980
<i>Masp2</i>	mannan-binding lectin serine protease 2	1.5878	0.0389	1.2354	0.1530

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Parp11</i>	similar to poly (ADP-ribose) polymerase family, member 11 isoform 2	1.5868	0.0455	1.0136	0.3330
<i>Loc690918</i>	hypothetical protein	1.5864	0.0368	1.4201	0.1800
<i>Anapc7</i>	similar to Anaphase-promoting complex subunit 7 (APC7) (Cyclosome subunit 7) (Prediabetic NOD sera-reactive autoantigen)	1.5850	0.0410	1.5967	0.0659
<i>Tekt5</i>	hypothetical protein LOC363538	1.5845	0.0110	1.1930	0.6050
<i>Rgd1560010</i>	hypothetical protein	1.5839	0.0349	1.3277	0.1740
<i>Pth2r</i>	parathyroid hormone receptor 2	1.5806	0.0288	1.5823	0.1370
<i>Cse1l</i>	similar to chromosome segregation 1-like	1.5780	0.0344	1.3526	0.0766
<i>Rgd1310773</i>	similar to leucine rich repeat neuronal 6C isoform 1	1.5739	0.0166	1.0479	0.4560
<i>Angel2</i>	similar to D1Erttd396e protein	1.5734	0.0342	1.3283	0.1560
<i>Atf6</i>	similar to activating transcription factor 6	1.5732	0.0359	2.9770	0.0614
<i>Tmem116</i>	hypothetical protein	1.5720	0.0431	1.3195	0.3080
<i>Lpl</i>	lipoprotein lipase	1.5702	0.0242	0.8569	0.9630
<i>Mark1</i>	MAP/microtubule affinity-regulating kinase 1	1.5698	0.0337	1.4151	0.0859
<i>Slit2</i>	similar to slit homolog 2	1.5661	0.0302	1.2775	0.0644
<i>Slc16a2</i>	solute carrier family 16, member 2	1.5644	0.0348	1.2618	0.0676
<i>Agpat9</i>	hypothetical protein LOC305166	1.5635	0.0183	1.4228	0.0490
<i>Nmu</i>	neuromedin	1.5624	0.0097	1.3319	0.0549
<i>VeZF1</i>	similar to vascular endothelial zinc finger 1	1.5578	0.0291	1.3670	0.1170
<i>Wdr47</i>	similar to WD repeat domain 47	1.5575	0.0391	1.2302	0.3490
<i>Kcnq5l</i>	similar to potassium voltage-gated channel, subfamily Q, member 5	1.5543	0.0359	1.5206	0.1220

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Kcnh8</i>	potassium voltage-gated channel, subfamily H, member 8	1.5442	0.0423	1.3114	0.2280
<i>Supt7l</i>	similar to STAGA complex 65 gamma subunit (STAF65gamma) (SPTF-associated factor 65 gamma) (Suppressor of Ty 7-like)	1.5435	0.0369	1.4169	0.1690
<i>Neto1</i>	similar to Neuropilin and tolloid-like protein 1 precursor (Brain-specific transmembrane protein containing 2 CUB and 1 LDL-receptor class A domains protein 1)	1.5419	0.0349	1.1241	0.2370
<i>Pcdha12</i>	protocadherin alpha 11	1.5397	0.0149	1.2876	0.0783
<i>Wnt2b</i>	similar to wingless related MMTV integration site 2b	1.5376	0.0380	1.3972	0.1970
<i>Klhl38</i>	hypothetical protein LOC314996	1.5356	0.0316	1.1352	0.9300
<i>Ptk2</i>	PTK2 protein tyrosine kinase 2	1.5350	0.0353	1.3050	0.0547
<i>Trpc7</i>	similar to Short transient receptor potential channel 7 (TrpC7) (mTRP7)	1.5320	0.0326	1.1097	0.3870
<i>Baat</i>	bile acid-Coenzyme A: amino acid N-acyltransferase	1.5307	0.0391	1.1148	0.9630
<i>Gart</i>	similar to Trifunctional purine biosynthetic protein adenosine-3	1.5300	0.0394	1.1730	0.5260
<i>Dnaja4</i>	DnaJ (Hsp40) homolog, subfamily A, member 4	1.5279	0.0476	1.4046	0.1020
<i>Golga1</i>	similar to golgi autoantigen, golgin subfamily a, 1	1.5278	0.0236	1.4275	0.0373
<i>Loc499465</i>	hypothetical protein LOC499465	1.5264	0.0482	0.9475	0.9530
<i>Heatr3</i>	similar to CG10286-PA	1.5237	0.0379	1.2893	0.1290
<i>Ky</i>	similar to kyphoscoliosis	1.5193	0.0346	1.1699	0.1210

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Cwf19l1</i>	similar to CWF19-like 1, cell cycle control	1.5171	0.0241	1.3855	0.1190
<i>Rgd1305609</i>	similar to chromosome 1 open reading frame 14	1.5137	0.0440	1.1169	0.6330
<i>Syne1</i>	CPG2 protein	1.5120	0.0217	1.4598	0.0960
<i>Loc306096</i>	similar to dachshund homolog 1 isoform c isoform 1	1.5115	0.0345	1.1385	0.1540
<i>Ugt1a1</i>	UDP glycosyltransferase 1 family, polypeptide A7	1.5087	0.0372	1.1855	0.4000
<i>Rgd1309707</i>	similar to Smad ubiquitination regulatory factor 1 isoform 2	1.5059	0.0291	1.3248	0.0484
<i>Dnajc10</i>	similar to ER-resident protein ERdj5	1.5019	0.0348	1.5342	0.1180
<i>Loc688150</i>	similar to isthmin 1	1.5015	0.0289	1.0529	0.2190
<i>Loc684439</i>	hypothetical protein	1.5012	0.0377	0.9651	0.4010
<i>Rad50</i>	RAD50 homolog	1.5004	0.0489	1.3510	0.1630
<i>Tpm2</i>	hypothetical protein LOC500450	0.6644	0.0431	0.6820	0.1090
<i>Bmp7</i>	similar to Bone morphogenetic protein 7 precursor (BMP-7) (Osteogenic protein 1) (OP-1)	0.6643	0.0319	0.7635	0.1140
<i>Tbc1d10c</i>	similar to DKFZP434P1750 protein	0.6629	0.0293	0.5980	0.0594
<i>Entpd7</i>	similar to ectonucleoside triphosphate diphosphohydrolase 7	0.6626	0.0457	0.7888	0.2030
<i>Loc691316</i>	similar to 40S ribosomal protein S25	0.6621	0.0462	0.7356	0.0365
<i>Clic5</i>	chloride intracellular channel 5	0.6611	0.0358	0.7510	0.0663
<i>Cryab</i>	crystallin, alpha B	0.6608	0.0378	0.8854	0.2490
<i>Loc690154</i>	hypothetical protein	0.6583	0.0397	0.7393	0.0446
<i>Gprc5a</i>	G protein-coupled receptor, family C, group 5, member A	0.6574	0.0482	0.6431	0.1200

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc687081</i>	similar to GTPase activating protein testicular GAP1	0.6566	0.0226	0.7511	0.6770
<i>Anxa9</i>	similar to Annexin A9 (Annexin-31) (Annexin XXXI)	0.6564	0.0209	1.2398	0.9440
<i>Loc685906</i>	similar to splicing coactivator subunit SRm300	0.6555	0.0343	0.6369	0.0630
<i>Loc680081</i>	hypothetical protein	0.6538	0.0194	0.7567	0.1150
<i>Prssl1</i>	complement factor D-like protein	0.6536	0.0353	0.6639	0.1120
<i>Loc689657</i>	similar to chromosome 9 open reading frame 79	0.6528	0.0447	0.5555	0.0716
<i>Sned1</i>	similar to secreted nidogen domain protein	0.6518	0.0149	0.7263	0.0890
<i>Tmem100</i>	hypothetical protein LOC497979	0.6518	0.0367	0.8616	0.1220
<i>Max</i>	Max protein	0.6512	0.0196	0.8502	0.2740
<i>Ctu1</i>	similar to ATP binding domain 3	0.6498	0.0413	0.8123	0.0608
<i>Naip2</i>	similar to baculoviral IAP repeat-containing 1e	0.6495	0.0379	0.8028	0.6210
<i>Hsd17b1</i>	hydroxysteroid (17-beta) dehydrogenase 1	0.6484	0.0424	0.8127	0.3090
<i>Rbm20</i>	similar to Matrin-3	0.6479	0.0293	0.5677	0.0772
<i>Hoxb8</i>	similar to Homeobox protein Hox-B8 (Hox-2.4)	0.6473	0.0191	0.7555	0.0640
<i>Mip</i>	similar to major intrinsic protein of eye lens fiber	0.6468	0.0434	0.7771	0.0508
<i>Baiap2l1</i>	BAI1-associated protein 2-like 1	0.6464	0.0151	0.8142	0.6610
<i>Hk3</i>	hexokinase 3	0.6462	0.0325	0.7321	0.1420
<i>Loc684922</i>	hypothetical protein	0.6460	0.0451	0.9959	0.9750
<i>Kremen1</i>	kringle-containing transmembrane protein 1	0.6459	0.0189	0.7490	0.8360

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tagap</i>	similar to T-cell activation Rho GTPase-activating protein	0.6456	0.0283	0.7121	0.0285	
<i>Rgd1564340</i>	hypothetical protein	0.6455	0.0352	0.8694	0.3880	
<i>Prr11</i>	hypothetical protein	0.6448	0.0154	0.6473	0.2010	
<i>#N/A</i>	similar to DNA-directed RNA polymerase II largest subunit (RPB1)	0.6448	0.0257	0.6553	0.1780	
<i>Sox9</i>	similar to Transcription factor SOX-9	0.6446	0.0221	0.6833	0.0330	
<i>Cacna1h</i>	calcium channel, voltage-dependent, T type, alpha 1H subunit	0.6435	0.0222	1.1018	0.2410	
<i>Slc36a1</i>	solute carrier family 36 (proton/amino acid symporter), member 1	0.6430	0.0402	0.8065	0.8220	
<i>Thbs4</i>	similar to Thrombospondin-4 precursor	0.6429	0.0090	0.7909	0.0732	
<i>Klk8</i>	similar to Neuropsin precursor (NP) (Kallikrein-8) (Brain serine protease 1)	0.6429	0.0229	0.7089	0.1270	
<i>Paqr5</i>	membrane progesterin receptor gamma	0.6418	0.0145	0.7693	0.1570	
<i>Rgd1307966</i>	hypothetical protein	0.6417	0.0419	0.7125	0.5760	
<i>Atoh1</i>	similar to Atonal protein homolog 1 (Helix-loop-helix protein mATH-1) (MATH1)	0.6413	0.0461	0.8500	0.2020	
<i>Gja8</i>	gap junction membrane channel protein alpha 8	0.6406	0.0385	0.7530	0.0720	
<i>Ccdc113</i>	hypothetical protein	0.6404	0.0495	0.8924	0.6380	
<i>Psmb11</i>	similar to Proteasome subunit beta type 8 precursor (Proteasome component C13) (Macropain subunit C13) (Multicatalytic endopeptidase complex subunit C13)	0.6392	0.0435	0.5597	0.0536	
<i>Rgd1563263</i>	hypothetical protein	0.6390	0.0336	0.6644	0.0534	
<i>Chst3</i>	carbohydrate (chondroitin 6/keratan) sulfotransferase 3	0.6390		0.0497	0.7019	0.0881

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Glp1r</i>	glucagon-like peptide 1 receptor	0.6389		0.0373	0.8053	0.1160
<i>Mfi2</i>	similar to antigen p97 (melanoma associated) identified by monoclonal antibodies 133.2 and 96.5	0.6378		0.0112	0.6803	0.0068
<i>Zfp3611</i>	zinc finger protein 36, C3H type-like 1	0.6354		0.0436	0.9014	0.9840
<i>V1rc2</i>	vomeronal V1r-type receptor V1rc2	0.6347		0.0353	0.7162	0.2770
<i>Bmf</i>	Bcl2 modifying factor	0.6345		0.0423	0.7697	0.1250
<i>Cyt11</i>	similar to Cytokine-like protein 1 precursor (Protein C17)	0.6329		0.0489	0.8187	0.1670
<i>Rgd1565496</i>	similar to butyrate-induced transcript 1	0.6321		0.0428	0.5869	0.0690
<i>Nkd2</i>	similar to naked cuticle-2	0.6312		0.0248	0.7735	0.5760
<i>Enthd1</i>	hypothetical protein	0.6312		0.0113	0.6862	0.0381
<i>Mdk</i>	midkine	0.6312		0.0097	0.7739	0.1900
<i>Rnf216</i>	similar to TRIAD3 protein isoform a	0.6305		0.0439	0.7884	0.2070
<i>Acox1</i>	similar to acyl-Coenzyme A oxidase-like	0.6297		0.0329	0.7410	0.0592
<i>Loc689962</i>	hypothetical protein	0.6291		0.0060	0.7010	0.0310
<i>Wnt1</i>	similar to Proto-oncogene protein Wnt-1 precursor	0.6281		0.0350	0.7183	0.0558
<i>G0s2</i>	G0/G1 switch gene 2	0.6277		0.0076	0.6670	0.0180
<i>Loc680789</i>	hypothetical protein	0.6274		0.0185	0.7036	0.0242
<i>Col14a1</i>	similar to procollagen, type XIV, alpha 1	0.6274		0.0416	0.8539	0.6370
<i>Mst1</i>	Macrophage stimulating 1 (hepatocyte growth factor-like)	0.6274		0.0095	0.6606	0.0933
<i>Loc680618</i>	hypothetical protein	0.6265		0.0154	0.6287	0.0502
<i>Ctsj</i>	cathepsin J	0.6265		0.0415	0.7853	0.0953
<i>Nkx2-1</i>	similar to Thyroid transcription factor 1 (Thyroid nuclear factor 1) (TTF-1) (Homeobox protein Nkx-2.1)	0.6263		0.0229	0.6641	0.2190

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1565629</i>	similar to collagen and calcium binding EGF domains 1	0.6261		0.0471	0.7113	0.1840
<i>Cabp5</i>	similar to Calcium-binding protein 5 (CaBP5)	0.6257		0.0285	0.7438	0.1550
<i>Loc686545</i>	similar to slit homolog 1	0.6253		0.0269	0.7342	0.0984
<i>Crybb3</i>	crystallin, beta B3	0.6241		0.0250	0.7343	0.0977
<i>Loc689423</i>	hypothetical protein	0.6236		0.0160	0.7449	0.0581
<i>Mxd1</i>	similar to MAD protein (MAX dimerizer) (MAX dimerization protein 1)	0.6234		0.0461	0.5866	0.0762
<i>Loc295528</i>	similar to T06D8.1a	0.6230		0.0414	0.7732	0.2340
<i>Kdelr3</i>	similar to ER lumen protein retaining receptor 3 (KDEL receptor 3) (KDEL endoplasmic reticulum protein retention receptor 3)	0.6214		0.0221	0.7890	0.0717
<i>Mylk2</i>	myosin light chain kinase 2, skeletal muscle	0.6205		0.0039	0.7478	0.0296
<i>Pmfbp1</i>	polyamine modulated factor 1 binding protein 1	0.6199		0.0457	0.7273	0.0401
<i>Zfp569</i>	similar to zinc finger protein 568	0.6184		0.0350	0.7381	0.0679
<i>Loc686933</i>	similar to one cut domain, family member 3	0.6183		0.0214	0.6800	0.0325
<i>Loc688349</i>	similar to ATP-binding cassette, sub-family C (CFTR/MRP), member 1	0.6181		0.0414	0.6972	0.6100
<i>Wdr66</i>	similar to WD repeat domain 66	0.6178		0.0215	0.8358	0.1490
<i>Loc686907</i>	similar to cis-Golgi matrix protein GM130 isoform 1	0.6177		0.0179	0.7263	0.0641
<i>Loc680214</i>	hypothetical protein	0.6175		0.0264	0.7153	0.0129

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Galnt1</i>	similar to Putative polypeptide N-acetylgalactosaminyltransferase-like protein 1 (Protein-UDP acetylgalactosaminyltransferase-like protein 1) (UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase-like protein 1) (Polypeptide GalNAc transferase-... iso	0.6173	0.0396	0.7276	0.0750
<i>Tbx2</i>	similar to T-box transcription factor TBX2 (T-box protein 2)	0.6167	0.0204	0.7470	0.0378
<i>Loc680322</i>	similar to Histone H2A type 1	0.6161	0.0297	0.6583	0.0598
<i>Ttc34</i>	hypothetical protein	0.6158	0.0431	0.7482	0.0971
<i>Loc684716</i>	hypothetical protein	0.6158	0.0172	0.6795	0.0344
<i>B3gnt6</i>	similar to beta-1,3-N-acetylglucosaminyltransferase protein	0.6157	0.0410	0.6391	0.0618
<i>Gip</i>	Glucose-dependent insulinotropic peptide	0.6153	0.0213	0.7932	0.0943
<i>Cdkn1c</i>	cyclin-dependent kinase inhibitor 1C, p57 isoform 2	0.6131	0.0370	0.7606	0.1250
<i>Mist</i>	similar to cytokine-dependent hematopoietic cell linker	0.6131	0.0456	0.7856	0.1930
<i>Nt5dc2</i>	5'-nucleotidase domain containing 2	0.6126	0.0155	0.7261	0.3150
<i>Rgd1304931</i>	hypothetical protein	0.6124	0.0200	0.5825	0.0556
<i>Loc681600</i>	similar to eukaryotic translation initiation factor 4, gamma 1 isoform a	0.6119	0.0221	0.9037	0.3650
<i>Rgd1564114</i>	hypothetical protein	0.6116	0.0217	0.7077	0.0431
<i>Rgd1308195</i>	similar to secreted Ly6/uPAR related protein 2 isoform b	0.6113	0.0277	0.7358	0.1730

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Hivep3</i>	similar to human immunodeficiency virus type I enhancer binding protein 3	0.6113		0.0463	0.5303	0.1820
<i>Ttc9</i>	similar to Tetratricopeptide repeat protein 9 (TPR repeat protein 9)	0.6109		0.0240	0.8294	0.2110
<i>Lamb2</i>	laminin, beta 2	0.6106		0.0313	0.6777	0.5480
<i>Loc684372</i>	hypothetical protein	0.6104		0.0324	0.6847	0.0317
<i>Tspo</i>	benzodiazepin receptor	0.6095		0.0257	0.8393	0.2470
<i>Dntt</i>	deoxynucleotidyltransferase, terminal	0.6083		0.0096	1.0879	0.7320
<i>Loc691967</i>	hypothetical protein	0.6077		0.0187	0.8082	0.5610
<i>Rgd1561572</i>	splicing factor 3a, subunit 2, 66kDa	0.6069		0.0272	0.6412	0.1030
<i>Fam53a</i>	similar to dorsal neural-tube nuclear protein	0.6067		0.0320	0.6988	0.1170
<i>Lyzl4</i>	similar to lysozyme-like protein 4	0.6062		0.0259	0.7447	0.1340
<i>Cd207</i>	similar to CD207 antigen, langerin	0.6053		0.0374	0.6456	0.1250
<i>Tnni1</i>	Troponin I, slow isoform	0.6053		0.0421	0.6395	0.0509
<i>Ino80d</i>	similar to CG7832-PA	0.6048		0.0210	1.1200	0.9770
<i>S100a3</i>	S100 calcium binding protein A3	0.6047		0.0378	0.7026	0.0698
<i>Fbp1</i>	fructose-1,6- biphosphatase 1	0.6045		0.0133	0.6978	0.0238
<i>Loc688916</i>	hypothetical protein	0.6042		0.0125	0.7032	0.0813
<i>Plek</i>	pleckstrin	0.6040		0.0489	0.7137	0.0947
<i>Helt</i>	similar to Hey-like transcription factor	0.6030		0.0280	0.8892	0.3110
<i>Loc686396</i>	similar to immunoglobulin superfamily, member 3	0.6026		0.0413	0.7209	0.1120
<i>Gpbar1</i>	G protein-coupled bile acid receptor 1	0.6025		0.0103	0.6547	0.0927
<i>Loc690776</i>	hypothetical protein	0.6019		0.0428	0.6303	0.0517
<i>Loc686849</i>	hypothetical protein	0.6019		0.0089	0.7009	0.0351
<i>Tcte1</i>	similar to t-complex-associated testis expressed 1	0.6018		0.0374	0.6599	0.0666

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Dok7</i>	hypothetical protein	0.6017		0.0085	0.7616	0.0976
<i>Loc687460</i>	similar to G protein-coupled receptor 120	0.6011		0.0413	0.6847	0.0635
<i>Loc689826</i>	hypothetical protein	0.6004		0.0324	0.6933	0.0363
<i>Tubal3</i>	similar to tubulin, alpha-like 3	0.6002		0.0482	0.6922	0.0944
<i>Loc681146</i>	hypothetical protein	0.6002		0.0199	0.6901	0.0423
<i>Cxcl16</i>	hypothetical protein LOC497942	0.5998		0.0485	0.7440	0.1160
<i>Khsrp</i>	KH-type splicing regulatory protein	0.5997		0.0332	0.7319	0.2730
<i>Loc690207</i>	hypothetical protein	0.5980		0.0301	0.7687	0.4340
<i>Loc686374</i>	similar to tripartite motif-containing 42	0.5969		0.0146	0.7112	0.1080
<i>Sptbn5</i>	similar to Spectrin beta chain, brain 4 (Spectrin, non-erythroid beta chain 4) (Beta-V spectrin) (BSPECV)	0.5962		0.0085	0.7476	0.0548
<i>Tnfsf18</i>	similar to tumor necrosis factor (ligand) superfamily, member 18	0.5962		0.0176	0.6860	0.0484
<i>Bhlha9</i>	similar to pancreas specific transcription factor, 1a	0.5961		0.0229	0.5987	0.1070
<i>Ccdc60</i>	coiled-coil domain containing 60	0.5957		0.0110	0.8443	0.1040
<i>Lad1</i>	similar to ladinin	0.5955		0.0497	0.6494	0.0967
<i>Foxd3</i>	similar to forkhead box D3	0.5945		0.0442	0.7231	0.0239
<i>Retnlg</i>	resistin-like gamma	0.5942		0.0455	0.6585	0.0877
<i>Spib</i>	hypothetical protein LOC499146	0.5939		0.0296	0.7119	0.0472
<i>Apoa1</i>	apolipoprotein A-I	0.5939		0.0423	0.6722	0.0694
<i>Adm2</i>	adrenomedullin 2 precursor	0.5934		0.0060	0.7098	0.0261
<i>Acer1</i>	similar to N-acylsphingosine amidohydrolase 3	0.5928		0.0180	0.6941	0.0692
<i>Rgd1560069</i>	similar to ribosomal protein L27	0.5922		0.0430	0.6794	0.2650

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Atp4a</i>	similar to Potassium-transporting ATPase alpha chain 1 (Proton pump) (Gastric H ⁺ /K ⁺ ATPase alpha subunit)	0.5921		0.0232	0.6742	0.0863
<i>Loc690738</i>	hypothetical protein	0.5910		0.0304	0.6729	0.0330
<i>Wdfy2</i>	similar to WD repeat and FYVE domain containing 2	0.5909		0.0443	0.6688	0.1070
<i>Timp2</i>	tissue inhibitor of metalloproteinase 2	0.5907		0.0408	0.6740	0.0632
<i>Loc681643</i>	hypothetical protein	0.5907		0.0073	0.5960	0.1790
<i>Lcn4</i>	similar to Vomeronasal secretory protein 2 precursor (Vomeronasal secretory protein II) (VNSP II) (Lipocalin-4)	0.5898		0.0235	0.7161	0.0879
<i>Loc501033</i>	similar to UPF0258 protein KIAA1024	0.5896		0.0458	0.5318	0.0791
<i>Traip</i>	similar to TRAF-interacting protein	0.5893		0.0251	0.7625	0.0524
<i>Loc680780</i>	hypothetical protein	0.5884		0.0258	0.5952	0.0565
<i>Loc680927</i>	hypothetical protein	0.5880		0.0279	0.7127	0.0722
<i>Rgd1309730</i>	hypothetical protein isoform 2	0.5880		0.0395	0.7558	0.0926
<i>Hs6st1</i>	similar to heparan sulfate 6-O-sulfotransferase 1	0.5879		0.0365	0.6435	0.7430
<i>Loc679793</i>	hypothetical protein	0.5873		0.0151	0.7260	0.1880
<i>Cdkn1a</i>	cyclin-dependent kinase inhibitor 1A	0.5868		0.0352	0.7118	0.0943
<i>Tcfap4</i>	similar to transcription factor AP-4 (activating enhancer-binding protein 4)	0.5865		0.0425	0.7657	0.3360
<i>Rgd1308470</i>	bradykinin receptor b2	0.5861		0.0282	0.6563	0.0797
<i>Rspo1</i>	similar to thrombospondin type 1 domain containing	0.5855		0.0242	1.3450	0.9410
<i>Defb44</i>	defensin beta 44	0.5854		0.0188	0.6651	0.0825

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Adam33</i>	similar to ADAM 33 precursor (A disintegrin and metalloproteinase domain 33)	0.5850		0.0489	0.6780	0.1150
<i>Kif18b</i>	hypothetical protein LOC303575	0.5850		0.0271	0.5383	0.0507
<i>Loc687035</i>	similar to Tripartite motif protein 56	0.5846		0.0167	0.6590	0.1990
<i>Gnpnat1</i>	similar to Glucosamine 6-phosphate N-acetyltransferase (Phosphoglucosamine transacetylase) (Phosphoglucosamine acetylase) (EMeg32 protein)	0.5841		0.0442	0.7214	0.1510
<i>Gzma</i>	granzyme A	0.5839		0.0221	0.6848	0.0231
<i>Vav2</i>	similar to Protein vav-2 isoform 1	0.5837		0.0455	1.1215	0.9330
<i>Defb29</i>	beta-defensin 29	0.5834		0.0333	0.6482	0.0613
<i>Rgd1562406</i>	hypothetical protein	0.5834		0.0254	0.6695	0.0825
<i>Loc689587</i>	similar to chromosome 9 open reading frame 79	0.5827		0.0463	0.7950	0.2590
<i>Gpr3</i>	G protein-coupled receptor 3	0.5826		0.0433	0.8838	0.2220
<i>Msln</i>	mesothelin	0.5824		0.0456	0.8794	0.4560
<i>Rgd1359156</i>	hypothetical protein LOC287747	0.5796		0.0355	0.7109	0.1460
<i>Mefv</i>	Mediterranean fever	0.5791		0.0194	0.8805	0.1800
<i>Rcor2</i>	REST corepressor 2	0.5768		0.0373	1.0705	0.5840
<i>Zdhhc24</i>	zinc finger, DHHC domain containing 24	0.5766		0.0170	0.6865	0.0802
<i>Gprc5d</i>	similar to G-protein coupled receptor family C group 5 member D	0.5765		0.0487	0.5574	0.0630
<i>Loc684119</i>	hypothetical protein	0.5764		0.0389	0.6496	0.0855
<i>Twist2</i>	twist homolog 2	0.5748		0.0254	0.7393	0.0609
<i>Zfp36l2</i>	similar to zinc finger protein 36, C3H type-like 2	0.5744		0.0023	0.9297	0.4380
<i>Gcgr</i>	glucagon receptor	0.5742		0.0107	0.7183	0.0853

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Elf3</i>	E74-like factor 3	0.5737		0.0303	0.8717	0.3270
<i>Tmprss13</i>	similar to Transmembrane protease, serine 13 (Mosaic serine protease) (Membrane-type mosaic serine protease)	0.5737		0.0192	0.5273	0.0760
<i>Loc691821</i>	hypothetical protein	0.5736		0.0206	0.8587	0.2240
<i>Tsc22d4</i>	similar to TSC22 domain family protein 4 (TSC22-related-inducible leucine zipper protein 2) isoform 1	0.5729		0.0126	0.7337	0.1000
<i>Ccbe1</i>	similar to collagen and calcium binding EGF domains 1	0.5722		0.0485	0.7785	0.1690
<i>Serpina4</i>	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 4	0.5720		0.0449	0.6684	0.0777
<i>Loc681380</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.5719		0.0331	0.7096	0.1530
<i>Loc499618</i>	hypothetical protein	0.5704		0.0072	0.7371	0.0765
<i>Rgd1563874</i>	hypothetical protein	0.5701		0.0252	0.6949	0.1340
<i>Loc500445</i>	hypothetical protein LOC500445	0.5697		0.0320	0.7793	0.1640
<i>Loc499735</i>	similar to heat shock protein 1, alpha	0.5696		0.0492	0.5827	0.0900
<i>Hoxc12</i>	similar to homeobox C12	0.5683		0.0108	0.6986	0.0520
<i>Kif13b</i>	kinesin 13B	0.5681		0.0437	0.6773	0.2030
<i>Osgin1</i>	oxidative stress induced growth inhibitor 1	0.5679		0.0356	0.6502	0.1310
<i>Snf1lk</i>	salt-inducible protein kinase	0.5670		0.0427	0.6180	0.0823
<i>Hes6</i>	hairy and enhancer of split 6	0.5667		0.0129	0.7573	0.1510
<i>Fa2h</i>	similar to fatty acid 2-hydroxylase	0.5660		0.0134	0.6533	0.2400
<i>Nts</i>	similar to Neurotensin/neuromedin N precursor	0.5656		0.0108	0.7526	0.0862
<i>Loc687854</i>	hypothetical protein	0.5654		0.0332	0.7421	0.1460

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Kctd11</i>	similar to retinoic acid, EGF, and NGF upregulated	0.5647		0.0226	0.4972	0.0639
<i>Loc679119</i>	similar to bone morphogenetic protein 8b	0.5644		0.0380	0.6318	0.1120
<i>Stfa2l3</i>	similar to stefin A2	0.5640		0.0186	0.7490	0.0734
<i>Loc688431</i>	hypothetical protein	0.5637		0.0345	0.5809	0.0661
<i>Rgd1565676</i>	similar to regulatory factor X domain containing 1	0.5631		0.0313	0.6437	0.0880
<i>Loc687416</i>	hypothetical protein	0.5621		0.0398	0.6639	0.1860
<i>Loc691188</i>	similar to histidine rich calcium binding protein	0.5613		0.0482	0.6948	0.1660
<i>Loc361776</i>	hypothetical protein LOC361776	0.5612		0.0162	0.6072	0.0944
<i>Etfb</i>	electron-transfer-flavoprotein, beta polypeptide	0.5612		0.0499	0.7326	0.0836
<i>Rgd1564324</i>	similar to dehydrogenase/reductase member 2	0.5612		0.0121	0.7513	0.0995
<i>Pkhd1</i>	similar to polyductin	0.5590		0.0478	0.7055	0.2440
<i>Def6</i>	similar to differentially expressed in FDCP 6 homolog	0.5588		0.0389	0.6570	0.0551
<i>Loc500350</i>	hypothetical protein LOC500350	0.5582		0.0295	0.6439	0.0904
<i>Papola</i>	similar to poly (A) polymerase alpha isoform 1	0.5582		0.0418	0.7636	0.1010
<i>Mknk2</i>	MAP kinase-interacting serine/threonine kinase 2	0.5577		0.0376	0.7434	0.6650
<i>Loc679034</i>	hypothetical protein	0.5572		0.0418	0.5354	0.0967
<i>Loc687643</i>	similar to 60S ribosomal protein L13 (A52)	0.5572		0.0481	0.6064	0.0718
<i>Lrrc20</i>	similar to leucine rich repeat containing 20	0.5571		0.0221	0.6894	0.0856

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gng8</i>	guanine nucleotide binding protein (G protein), gamma 8 subunit	0.5565		0.0339	0.8404	0.1300
<i>Rgd1564942</i>	similar to C05G5.5	0.5564		0.0302	0.6501	0.0666
<i>Loc691770</i>	similar to Ankyrin repeat domain-containing protein 28	0.5563		0.0207	0.5992	0.1270
<i>Fam46a</i>	similar to family with sequence similarity 46, member A	0.5562		0.0214	0.7230	0.1300
<i>Irx2</i>	Iroquois related homeobox 2	0.5557		0.0440	0.4705	0.0548
<i>Mobp</i>	similar to myelin-associated oligodendrocyte basic protein isoform b	0.5554		0.0443	0.6065	0.6730
<i>Rgd1561251</i>	hypothetical protein	0.5548		0.0256	0.6793	0.0284
<i>Nr0b2</i>	nuclear receptor subfamily 0, group B, member 2	0.5547		0.0115	0.7298	0.0530
<i>Lmx1b</i>	similar to LIM homeobox transcription factor 1, beta isoform 1	0.5531		0.0316	0.6445	0.2610
<i>Calca</i>	calcitonin isoform Cgrp preproprotein	0.5531		0.0227	0.7611	0.0815
<i>Rgd1561813</i>	similar to PRAME family member DJ1198H6.2	0.5529		0.0338	0.7588	0.1120
<i>Grip2</i>	glutamate receptor interacting protein 2	0.5526		0.0342	0.7132	0.2250
<i>Rshl3</i>	similar to radial spokehead-like 3	0.5512		0.0380	0.9991	0.9070
<i>Pcdha10</i>	protocadherin alpha 10	0.5497		0.0303	0.9549	0.2350
<i>Atp6v0e1</i>	ATPase, H ⁺ transporting, V0 subunit e	0.5496		0.0374	0.7796	0.1060
<i>Myo5c</i>	similar to Myosin-5C (Myosin Vc)	0.5485		0.0167	1.0881	0.8550
<i>Loc689103</i>	similar to vitelliform macular dystrophy 2-like 2 isoform 2	0.5478		0.0321	0.5752	0.0674
<i>Ckt2</i>	similar to CKT2 protein	0.5477		0.0105	0.7914	0.0609
<i>Cfc1</i>	similar to cripto, FRL-1, cryptic family 1	0.5472		0.0439	0.8128	0.1550
<i>Tmem132b</i>	similar to CG14446-PA	0.5471		0.0164	0.5414	0.1240

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Mlph</i>	melanophilin	0.5470		0.0157	0.6471	0.0566
<i>Rgd1564841</i>	similar to NACHT, leucine rich repeat and PYD containing 4E	0.5468		0.0220	0.6903	0.0754
<i>Loc315493</i>	similar to keratin complex 1, acidic, gene 18	0.5465		0.0255	0.6968	0.1310
<i>Rgd1559640</i>	similar to Kinase suppressor of ras-1 (Kinase suppressor of ras)	0.5464		0.0107	0.7874	0.3290
<i>Spns3</i>	similar to spinster-like	0.5459		0.0337	0.6009	0.0541
<i>Loc689795</i>	hypothetical protein	0.5456		0.0330	0.7101	0.0359
<i>Rgd1564906</i>	similar to Glutathione S-transferase alpha-4 (Glutathione S-transferase Yk) (GST Yk) (GST 8-8) (GST K) (GST A4-4)	0.5448		0.0156	0.8432	0.2320
<i>Prdm1</i>	similar to PR-domain zinc finger protein 1 (Beta-interferon gene positive-regulatory domain I-binding factor) (BLIMP-1)	0.5448		0.0459	0.6867	0.0824
<i>Cd247</i>	CD3 antigen, zeta polypeptide	0.5446		0.0164	0.6681	0.1530
<i>Sel1l3</i>	hypothetical protein	0.5440		0.0045	0.7729	0.1380
<i>Slc22a13</i>	similar to solute carrier family 22 (organic cation transporter), member 13	0.5424		0.0203	0.6189	0.0763
<i>St14</i>	suppression of tumorigenicity 14	0.5413		0.0155	0.6360	0.0674
<i>Rgd1560943</i>	similar to AT rich interactive domain 3C (Bright like)	0.5400		0.0185	0.6327	0.0914
<i>Capza3</i>	capping protein (actin filament) muscle Z-line, alpha 3	0.5400		0.0492	0.7459	0.4190
<i>Loc680648</i>	hypothetical protein	0.5397		0.0393	0.6058	0.1670
<i>Cd209a</i>	similar to CD209a antigen	0.5393		0.0317	0.6634	0.1790
<i>Stfa2l3</i>	similar to stefin A2	0.5388		0.0434	0.5919	0.0669

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687118</i>	similar to death effector domain-containing DNA binding protein 2	0.5378		0.0298	0.4512	0.2040
<i>Loc688488</i>	hypothetical protein	0.5377		0.0036	0.7510	0.0496
<i>Isl2</i>	insulin related protein 2	0.5366		0.0081	0.7657	0.1840
<i>Mgp</i>	matrix Gla protein	0.5360		0.0119	0.7816	0.0609
<i>Xrra1</i>	similar to Gp150 CG5820-PD, isoform D	0.5348		0.0283	0.6592	0.0873
<i>Mlxip</i>	similar to mondoA isoform 1	0.5344		0.0114	0.6782	0.1140
<i>Cdh3</i>	similar to cadherin 3 isoform b	0.5344		0.0105	0.6849	0.4570
<i>Cdc42bpg</i>	similar to Serine/threonine-protein kinase MRCK gamma (CDC42-binding protein kinase gamma) (Myotonic dystrophy kinase-related CDC42-binding kinase gamma) (Myotonic dystrophy protein kinase-like alpha) (MRCK gamma) (DMPK-like gamma)	0.5334		0.0296	0.6819	0.0382
<i>Loc691900</i>	hypothetical protein	0.5332		0.0241	0.6552	0.1040
<i>I18ra</i>	interleukin 8 receptor, alpha	0.5322		0.0088	0.6325	0.0855
<i>Midn</i>	similar to midnolin	0.5320		0.0142	0.6000	0.0809
<i>Maff</i>	similar to Transcription factor MafF (V-maf musculoaponeurotic fibrosarcoma oncogene homolog F)	0.5315		0.0345	0.5994	0.0619
<i>Kcng1</i>	similar to Potassium voltage-gated channel subfamily G member 1 (Voltage-gated potassium channel subunit Kv6.1) (KH2)	0.5291		0.0074	1.0556	0.7140
<i>Ttr</i>	transthyretin	0.5291		0.0305	0.8313	0.4950
<i>Ankrd2</i>	similar to Ankyrin repeat domain protein 2 (Skeletal muscle ankyrin repeat protein) (mArpp)	0.5272		0.0219	0.5572	0.1350

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Spata21</i>	spergen-3	0.5270		0.0249	0.7012	0.0504
<i>Copz2</i>	similar to Coatomer subunit zeta-2 (Zeta-2 coat protein) (Zeta-2 COP)	0.5267		0.0186	0.6254	0.0539
<i>Prrxl1</i>	paired related homeobox protein-like 1	0.5265		0.0352	0.6325	0.0564
<i>Loc685407</i>	hypothetical protein	0.5251		0.0348	0.6540	0.0832
<i>Gpr87</i>	similar to Probable G-protein coupled receptor 87	0.5245		0.0208	0.6362	0.0622
<i>Crebbp</i>	CREB binding protein	0.5239		0.0064	0.8105	0.2550
<i>Crrh2</i>	corticotropin releasing hormone receptor 2	0.5235		0.0061	0.5404	0.2890
<i>Agpat2</i>	similar to 1-acylglycerol-3-phosphate O-acyltransferase 2	0.5234		0.0060	0.7495	0.2770
<i>Eps8l3</i>	similar to epidermal growth factor receptor pathway substrate 8-like protein 3	0.5225		0.0251	0.6544	0.1330
<i>Scube3</i>	similar to signal peptide, CUB and EGF-like domain containing protein 3	0.5222		0.0102	0.6668	0.0312
<i>Kcnk16</i>	similar to potassium channel, subfamily K, member 16	0.5221		0.0161	0.7038	0.1490
<i>Loc687259</i>	similar to Ras-related C3 botulinum toxin substrate 1 precursor (p21-Rac1)	0.5218		0.0110	0.6771	0.0564
<i>Dgcr2</i>	DiGeorge syndrome critical region gene 2	0.5211		0.0339	0.5695	0.1740
<i>Rgd1562911</i>	similar to coiled-coil domain containing 24	0.5210		0.0290	0.6951	0.0802
<i>Dll3</i>	delta-like 3	0.5208		0.0237	0.6210	0.0687
<i>Zmynd15</i>	similar to zinc finger, MYND domain containing 15	0.5193		0.0329	0.6024	0.0745
<i>Ly86</i>	similar to Lymphocyte antigen 86 precursor (MD-1 protein)	0.5193		0.0284	0.6365	0.0560

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc293989</i>	cytochrome P450-like	0.5188		0.0364	0.7206	0.0361
<i>Loc689891</i>	similar to 60S ribosomal protein L17 (L23) (Amino acid starvation-induced protein) (ASI)	0.5178		0.0492	0.6319	0.2530
<i>Cldn1</i>	claudin 1	0.5177		0.0134	0.7417	0.1220
<i>Fam154a</i>	hypothetical protein	0.5176		0.0351	0.6580	0.1240
<i>Rgd1359449</i>	gasdermin domain containing protein RGD1359449	0.5175		0.0454	0.7991	0.2250
<i>Pde4c</i>	similar to cAMP-specific 3,5-cyclic phosphodiesterase 4C (DPDE1)	0.5175		0.0145	0.7043	0.0355
<i>Ankh</i>	similar to Progressive ankylosis protein (Fn54 protein)	0.5171		0.0195	0.9634	0.4080
<i>Loc682984</i>	hypothetical protein	0.5168		0.0375	0.6973	0.2640
<i>Dmgdh</i>	dimethylglycine dehydrogenase precursor	0.5165		0.0486	0.7506	0.5680
<i>Rgd1565591</i>	similar to Sloan-Kettering viral oncogene homolog	0.5151		0.0253	0.4590	0.1080
<i>Loc683410</i>	similar to ankyrin repeat domain 33	0.5148		0.0338	0.5984	0.0527
<i>Syncn</i>	syncollin	0.5145		0.0072	0.5831	0.0918
<i>Ecat1</i>	similar to CG11584-PB	0.5144		0.0267	0.6180	0.0693
<i>Stxbp4</i>	similar to syntaxin binding protein 4	0.5143		0.0224	0.5376	0.0682
<i>Garp</i>	similar to Leucine-rich repeat-containing protein 32 precursor (GARP protein) (Garpin) (Glycoprotein A repetitions predominant)	0.5142		0.0316	0.5228	0.0594
<i>Dpys</i>	dihydropyrimidinase	0.5133		0.0437	0.5245	0.0898
<i>Aqp1</i>	aquaporin 1	0.5123		0.0122	0.8571	0.3030

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc688297</i>	similar to Retinal rod rhodopsin-sensitive cGMP 3,5-cyclic phosphodiesterase gamma-subunit (GMP-PDE gamma) isoform 1	0.5113	0.0072	0.6294	0.5890
<i>Rapgef1</i>	similar to Rap guanine nucleotide exchange factor (GEF) 1 isoform 3	0.5098	0.0219	0.6002	0.1300
<i>Loc683404</i>	similar to Retinitis pigmentosa 1-like 1 protein (Retinitis pigmentosa 1-like protein 1)	0.5093	0.0282	0.6788	0.0876
<i>Rgd1304963</i>	hypothetical protein	0.5082	0.0454	0.5821	0.0722
<i>Loc681984</i>	hypothetical protein	0.5082	0.0201	0.5626	0.0934
<i>Loc689408</i>	similar to H2A histone family, member V isoform 1	0.5081	0.0327	0.6051	0.0802
<i>Olr1088</i>	similar to Olfactory receptor 10T2 (Olfactory receptor OR1-3)	0.5079	0.0396	0.6899	0.1790
<i>Asb16</i>	similar to ankyrin repeat and SOCS box-containing 16	0.5079	0.0135	0.4638	0.0635
<i>Dmbt1</i>	similar to deleted in malignant brain tumors 1 isoform a precursor	0.5071	0.0461	0.6044	0.1190
<i>Eda2r</i>	similar to Tumor necrosis factor receptor superfamily member 27 (X-linked ectodysplasin-A2 receptor) (EDA-A2 receptor)	0.5069	0.0336	0.6873	0.3830
<i>Evpl</i>	similar to Envoplakin (p210) (210 kDa cornified envelope precursor protein)	0.5068	0.0146	0.6992	0.0158
<i>Rgd1305673</i>	similar to PR-domain protein 11	0.5061	0.0114	0.8114	0.1440
<i>Retnla</i>	resistin like alpha	0.5059	0.0463	0.5866	0.0943
<i>C3</i>	complement component 3	0.5058	0.0406	0.6485	0.2310

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Atf3</i>	activating transcription factor 3	0.5049		0.0121	0.1630
<i>Creld2</i>	cysteine-rich with EGF-like domains 2	0.5048		0.0282	0.1350
<i>Otx2</i>	similar to orthodenticle 2 isoform b	0.5047		0.0079	0.8180
<i>Foxj1</i>	forkhead box J1	0.5045		0.0330	0.1770
<i>Echdc3</i>	similar to enoyl Coenzyme A hydratase domain containing 3	0.5040		0.0099	0.1020
<i>Loc689213</i>	hypothetical protein	0.5038		0.0376	0.0890
<i>Scn4b</i>	sodium channel, voltage-gated, type IV, beta	0.5030		0.0161	0.3890
<i>Sox2</i>	similar to Transcription factor SOX-2	0.5006		0.0194	0.2330
<i>Col23a1</i>	procollagen, type XXIII, alpha 1	0.4994		0.0088	0.0634
<i>Loc685512</i>	hypothetical protein	0.4993		0.0445	0.1470
<i>Loc691077</i>	hypothetical protein	0.4985		0.0426	0.1070
<i>Zc3h12a</i>	zinc finger CCCH type containing 12A	0.4971		0.0145	0.1160
<i>Rnase17</i>	ribonuclease 17	0.4969		0.0439	0.1760
<i>Loc688345</i>	similar to 8D6 antigen	0.4960		0.0368	0.0537
<i>Mca32</i>	mast cell antigen 32	0.4959		0.0249	0.0517
<i>Edaradd</i>	similar to Ectodysplasin A receptor-associated adapter protein (EDAR-associated death domain protein) (Crinkled homolog)	0.4950		0.0098	0.0917
<i>Loc304903</i>	similar to Pappalysin-2 precursor (Pregnancy-associated plasma protein-A2) (PAPP-A2) (Pregnancy-associated plasma protein-E1) (PAPP-E) isoform 2	0.4923		0.0290	0.0519
<i>Loc686356</i>	hypothetical protein	0.4913		0.0063	0.0703
<i>Syngap1</i>	synaptic Ras GTPase activating protein 1 homolog	0.4908		0.0350	0.5300

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Hsd17b6</i>	hydroxysteroid (17-beta) dehydrogenase 6	0.4901		0.0401	0.4856	0.2290
<i>Tnni3</i>	troponin 1, type 3	0.4900		0.0050	0.6286	0.0519
<i>Fam129a</i>	niban protein	0.4891		0.0315	0.5756	0.0852
<i>Dnah2</i>	similar to dynein heavy chain domain 3	0.4887		0.0101	0.5993	0.0583
#N/A	hypothetical protein LOC498525	0.4858		0.0288	0.8057	0.2220
<i>Crabp1</i>	similar to Cellular retinoic acid-binding protein 1 (Cellular retinoic acid-binding protein I) (CRABP-I) (Retinoic acid-binding protein I, cellular)	0.4851		0.0074	0.6987	0.0194
<i>Ppcdc</i>	similar to phosphopantothencysteine decarboxylase	0.4848		0.0338	0.5559	0.0783
<i>Cyp1a2</i>	cytochrome P450, family 1, subfamily a, polypeptide 2	0.4841		0.0220	0.5484	0.2480
<i>Klhl1</i>	similar to kelch-like 1	0.4830		0.0444	0.5156	0.1160
<i>Loc289035</i>	hypothetical protein LOC289035	0.4823		0.0488	0.7175	0.1600
<i>Klb</i>	similar to klotho beta	0.4822		0.0223	0.7349	0.0281
<i>Loc692009</i>	hypothetical protein	0.4815		0.0261	0.5582	0.0628
<i>Rgd1559732</i>	similar to butyrophilin related 1	0.4812		0.0101	0.6759	0.0612
<i>Loc690965</i>	similar to CG17265-PA	0.4811		0.0477	0.5932	0.0964
<i>Vamp5</i>	vesicle-associated membrane protein 5	0.4808		0.0457	0.6858	0.1170
<i>Loc687936</i>	hypothetical protein	0.4805		0.0317	0.6177	0.1300
<i>Loc688499</i>	hypothetical protein	0.4803		0.0464	0.6091	0.0919
<i>Sfmbt2</i>	similar to Scm-like with four MBT domains protein 2	0.4794		0.0362	0.6699	0.0750
<i>Zfp568</i>	similar to zinc finger protein 420	0.4791		0.0111	0.6114	0.1060
<i>Loc691224</i>	hypothetical protein	0.4788		0.0494	0.4880	0.2210
<i>Chrna6</i>	cholinergic receptor, nicotinic, alpha polypeptide 6	0.4787		0.0064	0.5503	0.0879

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc686544</i>	similar to CG3104-PA, isoform A	0.4787		0.0083	0.6717	0.0311
<i>Sema6b</i>	sema domain, transmembrane domain (TM), and cytoplasmic domain	0.4785		0.0359	0.6149	0.2040
<i>Loc683707</i>	similar to type II keratin Kb9	0.4783		0.0499	0.5187	0.0633
<i>Clec2e</i>	similar to C-type lectin domain family 2, member e	0.4783		0.0360	0.6810	0.0993
<i>Zfp319</i>	similar to Zinc finger protein 319	0.4781		0.0479	0.5948	0.2960
<i>Loc678741</i>	similar to Zinc finger CCCH-type domain containing protein 6	0.4780		0.0267	0.7468	0.3010
<i>Ddc8</i>	hypothetical protein LOC498028	0.4779		0.0442	0.6328	0.0598
<i>Zar1</i>	zygote arrest 1	0.4779		0.0051	0.6470	0.0804
<i>Rgd1565363</i>	similar to BoIA-2 protein	0.4767		0.0468	0.6118	0.0739
<i>Loc687127</i>	similar to zinc finger protein 526	0.4759		0.0092	0.7003	0.0471
<i>C1qtnf9</i>	similar to adipocyte complement related protein of 30 kDa	0.4757		0.0441	0.8652	0.4130
<i>Loc679667</i>	hypothetical protein	0.4757		0.0467	0.5665	0.0850
<i>Lcn3</i>	similar to lipocalin 3	0.4756		0.0069	0.6611	0.1810
<i>Loc680205</i>	hypothetical protein	0.4751		0.0483	0.5897	0.3250
<i>Krt82</i>	type II keratin Kb22	0.4748		0.0217	0.7693	0.1460
<i>Rgd1307288</i>	similar to Protein C21orf58	0.4742		0.0302	0.6057	0.1250
<i>Tmie</i>	similar to integral membrane protein TMIE	0.4730		0.0402	0.5454	0.0618
<i>Cirbp</i>	cold inducible RNA binding protein	0.4705		0.0164	0.5608	0.1930
<i>Loc687081</i>	similar to GTPase activating protein testicular GAP1	0.4704		0.0195	0.6260	0.0637
<i>Prlr</i>	prolactin receptor isoform a	0.4703		0.0072	4.0434	0.1870
<i>H2-M9</i>	similar to RT1 class I, M1, gene 2	0.4703		0.0481	0.6391	0.2520

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Relt</i>	similar to tumor necrosis factor receptor superfamily, member 19-like	0.4701		0.0266	0.6436	0.1590
<i>Loc685219</i>	similar to ciliary rootlet coiled-coil, rootletin	0.4696		0.0356	0.7000	0.1600
<i>Loc687014</i>	similar to RalA binding protein 1	0.4695		0.0220	0.5407	0.0629
<i>Psmg4</i>	hypothetical protein	0.4692		0.0456	0.6852	0.2740
<i>Loc499971</i>	hypothetical protein LOC499971	0.4686		0.0271	0.5037	0.0632
<i>Loc685926</i>	hypothetical protein	0.4684		0.0157	0.7489	0.1260
<i>Defb5</i>	beta-defensin 3	0.4671		0.0276	0.6055	0.0894
<i>Synpo2l</i>	similar to synaptopodin 2-like	0.4667		0.0084	0.6330	0.0753
<i>Sh2d7</i>	similar to SH2 domain protein 2A (T cell-specific adapter protein) (TSAAd) (VEGF receptor-associated protein) (SH2 domain containing adapter protein)	0.4656		0.0347	0.5329	0.0728
<i>Loc681196</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.4655		0.0403	0.4275	0.0525
<i>Tcfcp2l1</i>	similar to LBP-9	0.4645		0.0168	0.5502	0.0510
<i>Il1r1</i>	interleukin 1 receptor, type I	0.4626		0.0260	0.5600	0.0817
<i>C1qtnf3</i>	similar to C1q and tumor necrosis factor related protein 3 isoform b	0.4625		0.0106	0.5333	0.0627
<i>Loc304239</i>	similar to RalA binding protein 1	0.4616		0.0462	0.5002	0.0699
<i>Tnfrsf22</i>	similar to Tumor necrosis factor receptor superfamily member 22 (Tumor necrosis factor receptor p60 homolog 2) (TNF receptor family member SOBa) (Decoy TRAIL receptor 2) (TNF receptor homolog 2)	0.4612		0.0274	0.7289	0.0270
<i>S100a4</i>	S100 calcium-binding protein A4	0.4609		0.0493	0.6018	0.1190

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc684199</i>	hypothetical protein	0.4591		0.0204	0.6649
<i>Loc686090</i>	hypothetical protein	0.4590		0.0371	0.6853
<i>Rgd1563870</i>	hypothetical protein	0.4587		0.0432	0.7003
<i>Fam110c</i>	hypothetical protein LOC500638	0.4586		0.0165	0.6522
<i>Rgd1564321</i>	diamine oxidase-like protein 2	0.4586		0.0462	0.5706
<i>S100a6</i>	S100 calcium binding protein A6 (calcyclin)	0.4583		0.0474	0.5898
<i>Scgn</i>	secretagogin, EF-hand calcium binding protein	0.4574		0.0176	0.6676
<i>Rgd1565323</i>	similar to Myosin light chain kinase 2, skeletal/cardiac muscle (MLCK2)	0.4574		0.0472	0.4890
<i>Glr5</i>	similar to glutaredoxin 5	0.4552		0.0088	0.7182
<i>Arl15</i>	similar to ADP-ribosylation factor related protein 2	0.4550		0.0381	0.6146
<i>Ttyh3</i>	similar to tweety 3	0.4547		0.0135	0.6312
<i>Cd3e</i>	similar to T-cell surface glycoprotein CD3 epsilon chain precursor (T-cell surface antigen T3/Leu-4 epsilon chain)	0.4534		0.0424	0.5137
<i>Cdyl2</i>	similar to chromodomain protein, Y-like 2	0.4523		0.0446	0.6615
<i>Loc691813</i>	similar to phospholipase A2, group IVC (cytosolic, calcium-independent)	0.4518		0.0389	0.7407
<i>Kcnq1</i>	potassium voltage-gated channel, subfamily Q, member 1	0.4483		0.0178	0.9801
<i>Cbx1</i>	similar to Chromobox protein homolog 1 (Heterochromatin protein 1 homolog beta) (HP1 beta) (Modifier 1 protein) (M31) (Heterochromatin protein p25)	0.4483		0.0418	0.7082
<i>Rgd1562146</i>	hypothetical protein	0.4481		0.0281	0.5649

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc689764</i>	hypothetical protein	0.4476		0.0089	0.1900
<i>Rgd1565058</i>	hypothetical protein	0.4472		0.0461	0.0962
<i>Loc56764</i>	dnaj-like protein	0.4472		0.0410	0.0828
<i>Loc686140</i>	hypothetical protein	0.4460		0.0005	0.0690
<i>Apoc2</i>	apolipoprotein C-II	0.4452		0.0029	0.2120
<i>Fabp6</i>	fatty acid binding protein 6, ileal (gastrotropin)	0.4451		0.0087	0.2160
<i>Aqp2</i>	aquaporin 2	0.4447		0.0019	0.1070
<i>Gdf6</i>	growth differentiation factor 6	0.4446		0.0050	0.0507
<i>Cpa1</i>	carboxypeptidase A1	0.4442		0.0166	0.1490
<i>Loc691293</i>	similar to reproductive homeobox on chromosome X, 7	0.4434		0.0238	0.2500
<i>Loc501274</i>	hypothetical protein	0.4422		0.0496	0.1100
<i>Il17d</i>	similar to interleukin 17D precursor	0.4415		0.0281	0.0612
<i>Msi2</i>	similar to Musashi homolog 2	0.4408		0.0052	0.1950
<i>Zfp385a</i>	similar to zinc finger protein 385 isoform 2	0.4395		0.0134	0.1820
<i>Mapk13</i>	mitogen activated protein kinase 13	0.4387		0.0109	0.0693
<i>Umodl1</i>	similar to uromodulin-like 1 isoform 1	0.4379		0.0121	0.1320
<i>Cox8b</i>	Cytochrom c oxidase subunit VIII-H (heart/muscle)	0.4357		0.0014	0.0492
<i>Ren</i>	renin 1	0.4336		0.0216	0.1070
<i>Zfp385a</i>	similar to zinc finger protein 385 isoform 4	0.4334		0.0169	0.4930
<i>Loc690667</i>	hypothetical protein	0.4329		0.0435	0.0519
<i>Loc689465</i>	similar to Poly(rC)-binding protein 4 (Alpha-CP4)	0.4313		0.0384	0.5890
<i>Mbd3l2</i>	similar to methyl-CpG binding domain protein 3-like 2	0.4306		0.0232	0.1440
<i>Socs3</i>	suppressor of cytokine signaling 3	0.4296		0.0023	0.0251

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc685569</i>	hypothetical protein	0.4294		0.0233	0.5570	0.0599
<i>Aspscr1</i>	similar to alveolar soft part sarcoma chromosome region, candidate 1 long isoform	0.4286		0.0022	0.7636	0.3020
<i>Loc680964</i>	similar to high mobility group nucleosomal binding domain 1 (predicted)	0.4285		0.0378	0.5874	0.0586
<i>Rgd1561523</i>	similar to guanylate binding protein family, member 6	0.4280		0.0086	0.9276	0.3140
<i>Trex2</i>	similar to Three prime repair exonuclease 2 (3-5 exonuclease TREX2)	0.4280		0.0136	0.5685	0.0784
<i>Rbp4</i>	similar to Plasma retinol-binding protein precursor (PRBP) (RBP)	0.4262		0.0383	0.5831	0.0858
<i>Zfp385a</i>	similar to zinc finger protein 385 isoform 2	0.4253		0.0069	0.7093	0.4770
<i>Loc685134</i>	hypothetical protein	0.4250		0.0332	0.5568	0.0924
<i>Loc689245</i>	hypothetical protein	0.4245		0.0338	0.5569	0.0840
<i>Psp</i>	parotid secretory protein	0.4238		0.0383	0.6155	0.0592
<i>Loc682197</i>	hypothetical protein	0.4231		0.0357	0.6757	0.1780
<i>Cd74</i>	CD74 antigen (invariant polypeptide of major histocompatibility class II antigen-associated)	0.4225		0.0018	0.6854	0.0300
<i>Defb1</i>	defensin beta 1	0.4225		0.0054	0.4832	0.1750
<i>Olr1340</i>	similar to olfactory receptor 985	0.4215		0.0387	0.5588	0.0801
<i>Loc691021</i>	similar to RIKEN cDNA 1700001F22	0.4215		0.0495	0.4788	0.0825
<i>Tns1</i>	similar to tensin	0.4207		0.0400	0.7179	0.2290
<i>Rdh7</i>	retinol dehydrogenase 7	0.4201		0.0257	0.6391	0.0545
<i>Krt16</i>	type I keratin KA16	0.4199		0.0100	0.6237	0.2070
<i>Sbk1</i>	SH3-binding kinase	0.4191		0.0002	0.9346	0.1800

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Runx2</i>	similar to runt-related transcription factor 2 isoform b	0.4189		0.0462	0.4438	0.0783
<i>Rgd1563410</i>	similar to Actin, cytoplasmic 2 (Gamma-actin)	0.4179		0.0228	0.4144	0.0699
<i>Dpt</i>	similar to Dermatopontin precursor (Tyrosine-rich acidic matrix protein) (TRAMP) (Early quiescence protein 1) (EQ-1)	0.4179		0.0151	0.6205	0.0925
<i>Vtcn1</i>	V-set domain containing T cell activation inhibitor 1	0.4175		0.0359	0.4631	0.1050
<i>Loc690452</i>	hypothetical protein	0.4161		0.0445	0.4842	0.0513
<i>Epha1</i>	similar to Eph receptor A1	0.4160		0.0433	0.5044	0.0610
<i>Loc688321</i>	similar to Lung carbonyl reductase [NADPH] (NADPH-dependent carbonyl reductase) (LCR) (Adipocyte P27 protein) (AP27)	0.4142		0.0136	0.4643	0.0896
<i>Il10</i>	interleukin 10	0.4139		0.0065	0.4977	0.0547
<i>Loc691353</i>	similar to Transcriptional regulator ATRX (ATP-dependent helicase ATRX) (X-linked nuclear protein) (Heterochromatin protein 2) (HP1 alpha-interacting protein) (HP1-BP38 protein)	0.4137		0.0275	0.4683	0.0510
<i>Pram1</i>	similar to PML-RARA regulated adaptor molecule 1	0.4136		0.0321	0.4530	0.0785
<i>Rgd1563692</i>	hypothetical protein	0.4134		0.0011	0.6833	0.1080
<i>Mark4</i>	similar to MAP/microtubule affinity-regulating kinase 4	0.4130		0.0322	0.5091	0.2130
<i>Cma1</i>	chymase 1	0.4120		0.0416	0.4960	0.0616

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Krt85</i>	similar to keratin complex 2, basic, gene 25	0.4116		0.0373	0.6111	0.1150
<i>Sftpd</i>	surfactant associated protein D	0.4102		0.0488	0.4893	0.1550
<i>Loc689983</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.4096		0.0453	0.5004	0.1230
<i>Loc681151</i>	hypothetical protein	0.4093		0.0433	0.4705	0.0671
<i>Loc691362</i>	hypothetical protein	0.4093		0.0152	0.6175	0.0602
<i>Zscan10</i>	similar to zinc finger protein 206	0.4087		0.0085	0.6066	0.1100
<i>Crocc</i>	similar to ciliary rootlet coiled-coil, rootletin	0.4084		0.0176	0.6455	0.1090
<i>Ovol2</i>	similar to ovo-like 2 isoform A	0.4081		0.0387	0.5964	0.1340
<i>Loc682666</i>	hypothetical protein	0.4077		0.0294	0.5960	0.0905
<i>Egr2</i>	early growth response 2	0.4075		0.0027	0.6073	0.0628
<i>Nphs1</i>	nephrosis 1 homolog, nephrin	0.4071		0.0055	0.7329	0.2500
<i>Loc689042</i>	hypothetical protein	0.4071		0.0291	0.5129	0.0679
<i>Hoxd4</i>	similar to homeo box D4	0.4057		0.0259	0.5141	0.0664
<i>Rt1-Db1</i>	RT1 class II, locus Db1	0.4053		0.0029	0.5766	0.0528
<i>Loc691915</i>	hypothetical protein	0.4046		0.0276	0.5669	0.1150
<i>Mrps17</i>	similar to mitochondrial ribosomal protein S17	0.4043		0.0489	0.4978	0.0625
<i>Zfp862</i>	similar to zinc finger protein 316	0.4041		0.0133	0.7250	0.1700
<i>Rho</i>	rhodopsin	0.4035		0.0018	0.6747	0.0162
<i>Madcam1</i>	mucosal vascular addressin cell adhesion molecule 1	0.4034		0.0348	0.5215	0.0620
<i>Loc685306</i>	similar to CG32580-PA	0.4031		0.0380	0.5813	0.4270
<i>Col9a2</i>	similar to Collagen alpha-2(IX) chain precursor	0.4024		0.0345	0.5267	0.0689
<i>Nat8</i>	camello-like 4	0.4021		0.0098	0.6405	0.1030

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tmem20</i>	similar to transmembrane protein 20	0.4011		0.0301	0.5592	0.1170
<i>Lrrc18</i>	hypothetical protein LOC306278	0.4001		0.0402	0.7379	0.5210
<i>Lmx1a</i>	similar to LIM homeobox transcription factor 1 alpha	0.3996		0.0005	0.6312	0.3690
<i>Xcl1</i>	small inducible cytokine subfamily C, member 1 (lymphotactin)	0.3988		0.0146	0.7308	0.3740
<i>Loc365778</i>	hypothetical protein LOC365778	0.3984		0.0359	0.5043	0.0536
<i>Loc686724</i>	similar to Robo-1	0.3982		0.0383	0.5505	0.0704
<i>Prrt1</i>	similar to NG5 protein isoform 1	0.3972		0.0084	0.6899	0.7020
<i>Rgd1566029</i>	hypothetical protein	0.3960		0.0294	0.7112	0.1760
<i>Rt1-M10-1</i>	RT1 class I, M10, gene 1	0.3949		0.0488	0.8871	0.5160
<i>Pabpn1</i>	Bcl2-like 2	0.3948		0.0360	0.4559	0.1960
<i>Loc682289</i>	similar to Dystrophin	0.3945		0.0388	0.5121	0.1330
<i>Mlxip</i>	similar to mondoA	0.3944		0.0071	0.5574	0.1170
<i>Dnmt3b</i>	similar to DNA methyltransferase 3B isoform 3	0.3930		0.0499	0.4957	0.0653
<i>Loc686437</i>	similar to Protein C14orf105	0.3922		0.0459	0.6687	0.2150
<i>Rgd1565655</i>	similar to testis expressed gene 101	0.3920		0.0498	0.4841	0.0847
<i>Pon3</i>	paraoxonase 3	0.3919		0.0095	0.7037	0.0729
<i>Ppy</i>	pancreatic polypeptide	0.3909		0.0249	0.6349	0.0749
<i>Serpinf2</i>	serine (or cysteine) peptidase inhibitor, clade F, member 2	0.3909		0.0072	0.4428	0.0567
<i>Shisa3</i>	similar to transmembrane protein 46	0.3902		0.0384	0.7603	0.2000
<i>Rgd1310384</i>	hypothetical protein isoform 2	0.3902		0.0406	0.5928	0.0571
<i>Kif26b</i>	hypothetical protein	0.3898		0.0200	0.5372	0.1140
<i>Loc679867</i>	hypothetical protein	0.3896		0.0261	0.5500	0.0719
<i>Rgd1309543</i>	similar to Protein KIAA1949 homolog	0.3885		0.0403	0.4834	0.1990

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc685273</i>	similar to U1 small nuclear ribonucleoprotein C (U1 snRNP protein C) (U1C protein) (U1-C)	0.3883	0.0103	0.7752	0.1210
<i>Tnnc2</i>	troponin C2, fast	0.3880	0.0183	0.6213	0.0880
<i>Rgd1565012</i>	similar to beta-1,3-N-acetylglucosaminyltransferase bGnT-5	0.3875	0.0178	0.5303	0.0807
<i>Vav2</i>	similar to Protein vav-2 isoform 3	0.3874	0.0065	0.6959	0.6210
<i>Loc679081</i>	hypothetical protein	0.3870	0.0347	0.5733	0.1150
<i>Loc686205</i>	hypothetical protein	0.3870	0.0426	0.4727	0.0613
<i>Rgd1564355</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4a	0.3844	0.0433	0.5125	0.0779
<i>Loc501738</i>	similar to CMRF-35-like molecule-7	0.3839	0.0318	0.4396	0.0951
<i>Fcer2</i>	Fc receptor, IgE, low affinity II, alpha polypeptide isoform b	0.3832	0.0206	0.5115	0.0796
<i>Loc682800</i>	similar to Mucin-2 precursor (Intestinal mucin 2)	0.3825	0.0215	0.5303	0.1290
<i>Loc682585</i>	hypothetical protein	0.3811	0.0420	0.4116	0.0508
<i>Fam83b</i>	hypothetical protein	0.3810	0.0293	0.4858	0.0890
<i>Prom2</i>	prominin 2	0.3799	0.0283	0.5189	0.1050
<i>Nxph3</i>	neurexophilin 3	0.3794	0.0065	0.8531	0.2290
<i>Pdzd7</i>	similar to PDZ domain containing 7	0.3790	0.0355	0.4328	0.0726
<i>Loc689983</i>	hypothetical protein	0.3785	0.0473	0.5493	0.0590
<i>Rgd1562026</i>	hypothetical protein	0.3781	0.0233	0.4742	0.1430
<i>Loc683070</i>	hypothetical protein	0.3776	0.0259	0.3769	0.0980
<i>Defb5</i>	beta-defensin 5	0.3776	0.0047	0.5311	0.1040
<i>Drd3</i>	dopamine receptor D3	0.3776	0.0418	0.3905	0.0569

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc691600</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.3758		0.0360	0.6465	0.1680
<i>Ebf3</i>	similar to early B-cell factor 3	0.3754		0.0299	0.4950	0.0739
<i>Krt72</i>	type II keratin Kb35	0.3738		0.0427	0.4207	0.0927
<i>Loc690457</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3712		0.0462	0.5230	0.0936
<i>Loc689983</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3681		0.0483	0.4898	0.0554
<i>Loc689028</i>	hypothetical protein	0.3675		0.0431	0.6581	0.2480
<i>Loc686034</i>	similar to chromobox homolog 3	0.3673		0.0461	0.4543	0.1610
<i>Loc689983</i>	similar to RIKEN cDNA 5031410I06	0.3648		0.0382	0.5114	0.0998
<i>Apon</i>	apolipoprotein N	0.3641		0.0444	0.5137	0.0925
<i>Loc689983</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.3640		0.0417	0.4527	0.0779
<i>Loc684299</i>	hypothetical protein	0.3637		0.0301	0.5263	0.1570
<i>Loc691009</i>	similar to squamous cell carcinoma antigen recognized by T-cells 1	0.3629		0.0368	0.3260	0.0596
<i>Mgc114499</i>	hypothetical protein LOC499135	0.3629		0.0461	0.4908	0.0901
<i>Loc689983</i>	hypothetical protein	0.3622		0.0483	0.4865	0.0664
<i>Ton</i>	tonin	0.3618		0.0155	0.7551	0.1170
<i>Aadacl3</i>	hypothetical protein	0.3617		0.0358	0.5478	0.0563
<i>Loc690218</i>	hypothetical protein	0.3612		0.0422	0.4369	0.0729
<i>Kera</i>	similar to Keratocan precursor (KTN) (Keratan sulfate proteoglycan keratocan)	0.3592		0.0471	0.4784	0.0949
<i>Lgals2</i>	lectin, galactoside-binding, soluble 2	0.3588		0.0316	0.4741	0.0618
<i>Loc685323</i>	hypothetical protein	0.3581		0.0441	0.3568	0.0523

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc497938</i>	hypothetical protein LOC497938	0.3581		0.0259	0.3258	0.0513
<i>Loc690279</i>	similar to ankyrin repeat and kinase domain containing 1	0.3569		0.0154	0.4419	0.0526
<i>Krt18</i>	keratin complex 1, acidic, gene 18	0.3562		0.0277	0.5772	0.0586
<i>Rbp2</i>	retinol binding protein 2, cellular	0.3539		0.0169	0.5446	0.2660
<i>Loc682199</i>	similar to Mucin-4 (Tracheobronchial mucin)	0.3536		0.0233	0.4819	0.0761
<i>Camp</i>	similar to Cathelin-related antimicrobial peptide precursor (Cramp) (Cathelin-like protein) (CLP)	0.3535		0.0489	0.5778	0.7280
<i>Loc690222</i>	similar to WW domain binding protein 11	0.3507		0.0406	0.4346	0.0502
<i>Junb</i>	jun B proto-oncogene	0.3507		0.0258	0.8936	0.1480
<i>Eif4ebp1</i>	eukaryotic translation initiation factor 4E binding protein 1	0.3498		0.0439	0.4469	0.0639
<i>Loc690379</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3484		0.0405	0.4959	0.0588
<i>Loc689983</i>	hypothetical protein	0.3480		0.0462	0.4881	0.0626
<i>Slc39a1</i>	similar to Zinc transporter ZIP1 (Zinc-iron regulated transporter-like) (Solute carrier family 39 member 1)	0.3464		0.0259	0.4397	0.0549
<i>Rgd1562704</i>	hypothetical protein	0.3464		0.0168	0.4818	0.0621
<i>Loc681205</i>	hypothetical protein	0.3457		0.0364	0.4754	0.1520
<i>Rgd1563741</i>	similar to serine/threonine kinase	0.3453		0.0398	0.4774	0.1150
<i>Adipoq</i>	adipocyte complement related protein of 30 kDa	0.3452		0.0037	1.0265	0.7640
<i>Pigr</i>	polymeric immunoglobulin receptor	0.3452		0.0390	0.4487	0.0635

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc686521</i>	similar to Forkhead box protein L1 (Forkhead-related protein FKHL11) (Forkhead-related transcription factor 7) (FREAC-7)	0.3450	0.0375	0.4226	0.0571
<i>Alox15b</i>	arachidonate 15-lipoxygenase, second type	0.3440	0.0338	0.5227	0.0857
<i>Loc684280</i>	similar to Class I histocompatibility antigen, Non-RT1.A alpha-1 chain precursor	0.3440	0.0419	0.6680	0.7930
<i>Scnn1a</i>	sodium channel, nonvoltage-gated, type I, alpha polypeptide	0.3439	0.0136	0.4787	0.0536
<i>Loc680431</i>	similar to double homeobox, 1	0.3431	0.0447	0.4427	0.0919
<i>Rgd1306074</i>	similar to Transmembrane protein 8 precursor (M83 protein)	0.3424	0.0270	0.3504	0.0540
<i>Loc689983</i>	hypothetical protein	0.3416	0.0330	0.4950	0.0550
<i>Loc680431</i>	hypothetical protein	0.3416	0.0325	0.4397	0.0920
<i>Loc684087</i>	hypothetical protein	0.3412	0.0442	0.4266	0.0786
<i>Rgd1565212</i>	hypothetical protein	0.3407	0.0253	0.3842	0.0552
<i>Mrgprd</i>	MAS-related G-protein coupled receptor, member D	0.3406	0.0276	0.4678	0.0556
<i>Loc680862</i>	similar to triggering receptor expressed on myeloid cells-like 4 isoform 1	0.3389	0.0448	0.3878	0.1270
<i>Loc686312</i>	similar to Salivary gland secretion 1 CG3047-PA	0.3386	0.0284	0.4028	0.0554
<i>Loc690228</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3384	0.0457	0.4646	0.0868
<i>Loc682695</i>	similar to Y54F10AM.7	0.3382	0.0379	0.4326	0.0571
<i>Ly9</i>	similar to T-lymphocyte surface antigen Ly- 9 precursor (Lymphocyte antigen 9) (Cell- surface molecule Ly-9)	0.3381	0.0327	0.7140	0.2830

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc679057</i>	hypothetical protein	0.3373		0.0191	0.4726	0.0930
<i>Clic6</i>	chloride intracellular channel 6	0.3367		0.0031	1.7271	0.8960
<i>Loc497888</i>	hypothetical protein LOC497888	0.3364		0.0271	0.4433	0.0700
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3351		0.0486	0.4117	0.0641
<i>Prlr</i>	prolactin receptor isoform b	0.3340		0.0370	2.5911	0.2360
<i>Loc681632</i>	similar to protein expressed in prostate, ovary, testis, and placenta 14 isoform POTE-14A	0.3326		0.0388	0.5299	0.1370
<i>Ceacam3</i>	carcinoembryonic antigen-related cell adhesion molecule 3	0.3309		0.0275	0.5418	0.1470
<i>Loc680411</i>	hypothetical protein	0.3309		0.0276	0.5863	0.1070
<i>Acpt</i>	similar to testicular acid phosphatase isoform a precursor	0.3302		0.0494	0.3683	0.0674
<i>Loc691671</i>	hypothetical protein	0.3288		0.0233	0.7065	0.1260
<i>Rgd1560932</i>	similar to HEAT-like repeat-containing protein	0.3271		0.0229	0.5281	0.0963
<i>Rgd1561339</i>	similar to Serine/threonine-protein kinase MARK2 (MAP/microtubule affinity-regulating kinase 2) (ELKL motif kinase) (EMK1) (PAR1 homolog)	0.3265		0.0492	0.3772	0.0564
<i>Kif1b</i>	cortistatin	0.3243		0.0403	0.4060	0.0806
<i>Loc685368</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.3240		0.0379	0.4288	0.0895
<i>Phf19</i>	similar to PHD finger protein 19	0.3236		0.0151	0.4657	0.1260
<i>Rt1-Ce13</i>	similar to RT1 class I, CE13	0.3235		0.0490	0.3213	0.0750
<i>Loc680431</i>	hypothetical protein	0.3234		0.0328	0.4013	0.0514

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Dsg1b</i>	similar to Desmoglein-1 alpha precursor (Dsg1-alpha) (Desmoglein-1) (Desmosomal glycoprotein I) (DG1) (DGI)	0.3215		0.0472	0.4205	0.0532
<i>Loc685986</i>	similar to F59A6.3	0.3212		0.0154	0.5323	0.0727
<i>Cyp2b31</i>	similar to Cytochrome P450 2B12 (CYPIB12)	0.3208		0.0423	0.3889	0.0879
<i>Hoxc4</i>	similar to homeobox C5	0.3201		0.0289	0.5211	0.1030
<i>Loc689983</i>	hypothetical protein isoform 2	0.3181		0.0495	0.4643	0.0619
<i>Sftpa1</i>	pulmonary surfactant-associated glycoprotein A	0.3170		0.0242	0.3863	0.0522
<i>Loc682860</i>	similar to Bromodomain adjacent to zinc finger domain 2A (Transcription termination factor I-interacting protein 5) (TTF-I-interacting protein 5) (Tip5)	0.3168		0.0117	0.3706	0.0581
<i>Rgd1304745</i>	similar to Nucleolar transcription factor 1 (Upstream-binding factor 1) (UBF-1)	0.3165		0.0481	0.4258	0.0972
<i>Loc688458</i>	hypothetical protein	0.3164		0.0295	0.6951	0.1170
<i>Sgp158</i>	proline-rich glycoprotein (sgp158)	0.3159		0.0384	0.3640	0.0530
<i>Loc689595</i>	hypothetical protein	0.3154		0.0163	0.5007	0.0533
<i>Sdf2i1</i>	similar to stromal cell-derived factor 2-like 1	0.3153		0.0435	0.5479	0.1580
<i>Lrrc30</i>	similar to malignant fibrous histiocytoma amplified sequence 1	0.3147		0.0104	0.4562	0.0508
<i>Klk13</i>	similar to kallikrein 13 precursor	0.3143		0.0332	0.3898	0.0573
<i>Loc684685</i>	similar to regulator of G-protein signalling like 2	0.3141		0.0247	0.3597	0.0576
<i>Loc681367</i>	hypothetical protein	0.3140		0.0092	0.6103	0.0610

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc501845</i>	similar to paired immunoglobulin-like type 2 receptor alpha	0.3118		0.0186	0.6254	0.1650
<i>Fam90a24</i>	hypothetical protein	0.3118		0.0407	0.4173	0.0895
<i>Loc687100</i>	hypothetical protein	0.3109		0.0408	0.4049	0.0774
<i>Rgd1564074</i>	similar to FYN-binding protein (FYN-T-binding protein) (FYB-120/130) (p120/p130) (SLP-76-associated phosphoprotein) (SLAP-130)	0.3106		0.0039	0.9681	0.6420
<i>Rgd1310425</i>	hypothetical protein LOC298398	0.3095		0.0176	0.3673	0.0826
<i>Loc685527</i>	hypothetical protein	0.3094		0.0401	0.4769	0.0964
<i>Cyr61</i>	cysteine rich protein 61	0.3087		0.0088	0.4747	0.1400
<i>Gpx5</i>	similar to Epididymal secretory glutathione peroxidase precursor (Epididymis-specific glutathione peroxidase-like protein) (EGLP)	0.3086		0.0345	0.3725	0.0589
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3079		0.0471	0.4706	0.0845
<i>Loc687931</i>	hypothetical protein	0.3068		0.0328	0.3590	0.0544
<i>Muc19</i>	similar to mucin 19	0.3067		0.0336	0.4167	0.0682
<i>Glycam1</i>	glycosylation dependent cell adhesion molecule 1	0.3065		0.0003	2.8743	0.3840
<i>Tmem72</i>	hypothetical protein	0.3059		0.0004	0.5447	0.1080
<i>Grifin</i>	galectin-related inter-fiber protein	0.3041		0.0114	0.7285	0.2400
<i>Rgd1562058</i>	hypothetical protein	0.3035		0.0418	0.4339	0.1030
<i>Loc680431</i>	hypothetical protein	0.3033		0.0426	0.3474	0.1010
<i>Loc691983</i>	similar to 40S ribosomal protein S16	0.3026		0.0361	0.4037	0.0535
<i>Rgd1559710</i>	similar to CD209a antigen	0.2992		0.0373	0.6354	0.2740
<i>Loc679149</i>	similar to carboxylesterase 2 (intestine, liver) isoform 2	0.2975		0.0056	0.6971	0.1180

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1564031</i>	similar to transcription elongation factor B (SIII), polypeptide 2	0.2975		0.0197	0.4563	0.1110
<i>Loc679742</i>	hypothetical protein	0.2969		0.0463	0.4146	0.1370
<i>Ces8</i>	similar to carboxylesterase 3	0.2967		0.0194	0.5179	0.1260
<i>Rgd1562019</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2937		0.0317	0.3958	0.0726
<i>Loc367377</i>	hypothetical protein	0.2926		0.0407	0.3659	0.0530
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2915		0.0483	0.4309	0.0574
<i>Loc680889</i>	hypothetical protein	0.2900		0.0209	0.4107	0.0792
<i>Ccl21b</i>	small inducible cytokine A21	0.2883		0.0378	0.3554	0.0518
<i>Rgd1564954</i>	hypothetical protein	0.2871		0.0361	0.4682	0.0540
<i>Hoxa5</i>	similar to Homeobox protein Hox-A5 (Hox-1.3) (M2)	0.2846		0.0094	0.3934	0.0503
<i>Tesp2</i>	similar to testicular serine protease 2	0.2845		0.0492	0.3646	0.0681
<i>Folr1</i>	folate receptor 1 (adult)	0.2824		0.0004	0.9175	0.6040
<i>Loc687533</i>	similar to paired immunoglobulin-like type 2 receptor alpha	0.2822		0.0246	0.5310	0.0996
<i>Lyp1a1</i>	similar to lysophospholipase-like 1	0.2813		0.0378	0.5643	0.0952
<i>Rgd1559946</i>	similar to KP78b CG17216-PA	0.2799		0.0392	0.3379	0.0619
<i>Defa6</i>	defensin alpha 6	0.2786		0.0224	0.4491	0.1320
<i>Loc685275</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.2781		0.0467	0.3494	0.0688
<i>Rt1-Bb</i>	similar to RT1 class II histocompatibility antigen, B-1 beta chain precursor (RT1.B-beta(1))	0.2781		0.0226	0.5956	0.1150
<i>Loc680239</i>	hypothetical protein	0.2777		0.0472	0.3671	0.0614
<i>Tmem139</i>	hypothetical protein	0.2766		0.0109	0.5224	0.0664
<i>Loc691136</i>	hypothetical protein	0.2753		0.0250	0.4294	0.0631

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc688464</i>	hypothetical protein	0.2747		0.0455	0.0531
<i>Ly6c</i>	Ly6-C antigen	0.2739		0.0406	0.1180
<i>Loc680431</i>	similar to double homeobox, 4	0.2738		0.0156	0.0504
<i>Prph2</i>	peripherin 2	0.2734		0.0242	0.0616
<i>Loc681544</i>	histidine-rich glycoprotein	0.2729		0.0259	0.0501
<i>Klk5l</i>	similar to Kallikrein-2 precursor (Tissue kallikrein-2) (Glandular kallikrein-1) (hGK-1)	0.2726		0.0331	0.1570
<i>Loc684798</i>	hypothetical protein	0.2721		0.0279	0.0821
<i>Trem1</i>	similar to triggering receptor expressed on myeloid cells 1	0.2709		0.0432	0.1450
<i>Loc688677</i>	similar to Glyceraldehyde-3-phosphate dehydrogenase (GAPDH)	0.2682		0.0364	0.1620
<i>Loc681115</i>	hypothetical protein	0.2674		0.0172	0.0697
<i>Loc683158</i>	hypothetical protein	0.2665		0.0264	0.0977
<i>Loc680431</i>	similar to double homeobox, 4	0.2647		0.0321	0.1090
<i>Loc500567</i>	hypothetical protein LOC500567	0.2637		0.0002	0.0760
<i>Loc683138</i>	hypothetical protein	0.2637		0.0443	0.0666
<i>Loc691594</i>	hypothetical protein	0.2621		0.0403	0.1060
<i>Rgd1559946</i>	similar to Serine/threonine-protein kinase MARK2 (MAP/microtubule affinity-regulating kinase 2) (ELKL motif kinase) (EMK1) (PAR1 homolog)	0.2614		0.0472	0.0599
<i>Loc686891</i>	hypothetical protein	0.2611		0.0366	0.0804
<i>Loc680431</i>	similar to double homeobox, 4	0.2595		0.0345	0.0826
<i>Loc501391</i>	hypothetical protein	0.2587		0.0489	0.0771
<i>Loc680431</i>	hypothetical protein	0.2578		0.0261	0.0562
<i>Rgd1560555</i>	similar to double homeobox, 4	0.2566		0.0331	0.0601

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Mrgprb13</i>	MAS-related G protein-coupled receptor, member B8	0.2563		0.0252	0.4599	0.0734
<i>Rgs12h</i>	putative membrane protein Re9	0.2559		0.0487	0.2847	0.0505
<i>Loc499384</i>	hypothetical protein	0.2535		0.0379	0.3935	0.0535
<i>Rgd1563259</i>	similar to par-1 CG8201-PO, isoform O	0.2527		0.0495	0.3545	0.0562
<i>Rgd1561813</i>	similar to PRAME family member DJ1198H6.2	0.2527		0.0303	0.3749	0.0579
<i>Loc687573</i>	hypothetical protein	0.2521		0.0380	0.5156	0.5560
<i>Loc501848</i>	similar to macrophage expressed gene 1	0.2521		0.0187	0.4699	0.1600
<i>Nppc</i>	natriuretic peptide precursor type C	0.2513		0.0388	0.3705	0.0813
<i>Loc680431</i>	similar to double homeobox, 4	0.2506		0.0261	0.3505	0.0728
<i>Rgd1564236</i>	similar to oocyte specific homeobox 3	0.2502		0.0492	0.3291	0.1040
<i>Apoc3</i>	apolipoprotein C-III	0.2489		0.0036	0.4813	0.0813
<i>Loc690312</i>	similar to Fc receptor-like and mucin-like 1	0.2473		0.0495	0.4326	0.1180
<i>Loc680431</i>	similar to double homeobox 4c	0.2448		0.0358	0.3697	0.1090
<i>Pon1</i>	paraoxonase 1	0.2425		0.0107	1.2139	0.9920
<i>Rgd1560185</i>	similar to trophinin isoform 1	0.2421		0.0286	0.3545	0.0795
<i>Loc685236</i>	hypothetical protein	0.2402		0.0385	0.3155	0.0532
<i>Tessp6</i>	testis-specific serine protease-6	0.2400		0.0430	0.3553	0.0681
<i>Loc678713</i>	hypothetical protein	0.2350		0.0320	0.2884	0.0545
<i>Loc316493</i>	similar to nidogen 2	0.2302		0.0352	0.3704	0.0579
<i>Loc689287</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.2290		0.0431	0.4285	0.2220
<i>Loc687742</i>	similar to Y39B6A.1	0.2287		0.0295	0.3015	0.0611
<i>Rgd1561305</i>	similar to F49C5.4	0.2284		0.0498	0.3165	0.0597
<i>Loc680431</i>	similar to Retinal homeobox protein Rx (DRx1) (DRx)	0.2261		0.0415	0.2812	0.0890

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562714</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2251		0.0405	0.3427	0.0664
<i>Loc683595</i>	hypothetical protein	0.2248		0.0120	0.7367	0.1850
<i>Rgd1562707</i>	similar to serine/threonine kinase	0.2240		0.0309	0.4590	0.1970
<i>Rgd1561232</i>	similar to Keratin, type II cytoskeletal 8 (Cytokeratin-8) (CK-8) (Keratin-8) (K8) (Cytokeratin endo A)	0.2239		0.0087	0.4158	0.0506
<i>Cyp2b15</i>	similar to Cytochrome P450 2B12 (CYPIB12)	0.2231		0.0392	0.3190	0.0537
<i>Papss1</i>	similar to Bifunctional 3-phosphoadenosine 5-phosphosulfate synthetase 1 (PAPS synthetase 1) (PAPSS 1) (Sulfurylase kinase 1) (SK1) (SK 1)	0.2222		0.0134	0.7091	0.2110
<i>Sytl3</i>	similar to synaptotagmin-like 3 isoform a	0.2217		0.0004	0.4161	0.1980
<i>Rgd1563738</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2211		0.0451	0.3242	0.0709
<i>Ear11</i>	eosinophil-associated, ribonuclease A family, member 11	0.2207		0.0090	0.4498	0.0927
<i>Loc366780</i>	similar to H39E23.3	0.2205		0.0287	0.3365	0.0782
<i>Loc684128</i>	hypothetical protein	0.2195		0.0240	0.2749	0.0541
<i>Loc689354</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.2170		0.0360	0.4234	0.1610
<i>Loc680431</i>	similar to double homeobox 4c	0.2162		0.0247	0.2657	0.0509
<i>Loc680431</i>	similar to double homeobox 4c	0.2136		0.0296	0.2801	0.0592
<i>Rgd1562853</i>	similar to PRAME family member 3	0.2135		0.0323	0.3426	0.0707

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc681230</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.2120		0.0452	0.3120	0.0529
<i>Loc689287</i>	similar to serine/threonine kinase	0.2109		0.0301	0.4141	0.0887
<i>Rgd1562035</i>	similar to Mast cell protease I precursor (RMCP-I) (RMCP-1) (Chymase) (Chymotrysin-like protease) (CLIP protein)	0.2108		0.0417	0.3160	0.0555
<i>Loc685118</i>	hypothetical protein	0.2099		0.0153	0.3769	0.0889
<i>Loc501274</i>	similar to Integrin alpha-6 precursor (VLA-6) (CD49f antigen)	0.2090		0.0447	0.3052	0.0711
<i>Loc683958</i>	hypothetical protein	0.2081		0.0173	0.3567	0.0584
<i>Loc685948</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.2081		0.0452	0.3012	0.0547
<i>Loc689287</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.2080		0.0241	0.4466	0.1440
<i>Loc681105</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2076		0.0463	0.3264	0.0557
<i>Loc689287</i>	similar to serine/threonine kinase	0.2074		0.0298	0.4270	0.1010
<i>Loc689287</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.2064		0.0284	0.3786	0.1030
<i>Loc690915</i>	similar to BCL6 co-repressor-like 1	0.2063		0.0366	0.4615	0.1160
<i>Loc680608</i>	hypothetical protein	0.2063		0.0023	0.3960	0.0600
<i>Loc689342</i>	similar to serine/threonine kinase	0.2055		0.0250	0.4985	0.1360
<i>Rgd1565684</i>	similar to kallikrein 2, prostatic isoform 2	0.2052		0.0227	0.2700	0.0523
<i>Loc681220</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2045		0.0441	0.4053	0.0908

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689287</i>	similar to serine/threonine kinase	0.2044		0.0133	0.3930	0.1060
<i>Mcpt3</i>	similar to Mast cell protease IV precursor (rMCP-IV) (rMCP-4)	0.2044		0.0235	0.3055	0.0518
<i>Loc681283</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.2035		0.0373	0.3086	0.0582
<i>Loc689287</i>	similar to serine/threonine kinase	0.2029		0.0213	0.4875	0.1210
<i>Rgd1562853</i>	similar to PRAME family member 5	0.2029		0.0428	0.3224	0.0900
<i>Loc681082</i>	similar to eukaryotic translation initiation factor 3, subunit 1 alpha	0.2020		0.0130	0.4693	0.2340
<i>Loc686342</i>	hypothetical protein	0.2012		0.0156	0.3248	0.0590
<i>Loc689368</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.2011		0.0220	0.4813	0.1200
<i>Loc681204</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2008		0.0455	0.3230	0.0535
<i>Loc295200</i>	similar to TD and POZ domain containing 3	0.1994		0.0355	0.2945	0.0582
<i>Loc689829</i>	hypothetical protein	0.1980		0.0421	0.3002	0.0557
<i>Mcpt8l3</i>	similar to Granzyme-like protein II precursor (GLP 2) (Mast cell protease X) (rMCP-X) (rMCP-10)	0.1951		0.0397	0.2880	0.0756
<i>Loc688608</i>	similar to PRAME family member DJ1198H6.2	0.1948		0.0496	0.2774	0.0699
<i>Loc689354</i>	similar to MAP/microtubule affinity-regulating kinase 3	0.1944		0.0198	0.4736	0.1010
<i>Rgd1561155</i>	similar to KP78b CG17216-PA	0.1907		0.0481	0.2268	0.0503
<i>Svs3b</i>	similar to seminal vesicle secretion 3	0.1875		0.0482	0.2563	0.0711
<i>Loc682858</i>	hypothetical protein	0.1874		0.0248	0.3614	0.0660

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc683490</i>	hypothetical protein	0.1867		0.0130	0.3899	0.1240
<i>Fam71e2</i>	similar to Protein C19orf16	0.1862		0.0277	0.2808	0.0973
<i>Loc498781</i>	similar to serine/threonine kinase	0.1855		0.0156	0.4870	0.1360
<i>Rgd1560209</i>	similar to MAP/microtubule affinity-regulating kinase 3	0.1851		0.0212	0.4586	0.1660
<i>Loc686387</i>	similar to paired immunoglobulin-like type 2 receptor alpha	0.1849		0.0279	0.4054	0.0956
<i>Loc683753</i>	hypothetical protein	0.1825		0.0003	0.9647	0.3540
<i>Loc684907</i>	hypothetical protein	0.1802		0.0189	0.2547	0.0514
<i>Loc691604</i>	similar to M199.5	0.1783		0.0315	0.3800	0.0516
<i>Loc689287</i>	similar to KP78a CG6715-PA	0.1747		0.0185	0.3432	0.0701
<i>Rgd1565071</i>	similar to par-1 CG8201-PO, isoform O	0.1707		0.0441	0.2727	0.1120
<i>Rgd1566040</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.1655		0.0173	0.3670	0.0605
<i>Slco1a5</i>	organic anion transporting polypeptide 3	0.1617		0.0008	0.8803	0.3480
<i>Rgd1560209</i>	similar to serine/threonine kinase	0.1608		0.0148	0.3452	0.0601
<i>Kcnj13</i>	potassium inwardly-rectifying channel, subfamily J, member 13	0.1582		0.0004	0.9614	0.3590
<i>Loc689354</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.1510		0.0119	0.4080	0.0889
<i>Loc688458</i>	hypothetical protein	0.1481		0.0074	0.3368	0.0503
<i>Loc687303</i>	similar to F35C5.3	0.1475		0.0187	0.2279	0.0681
<i>Rgd1562700</i>	similar to Natural killer cell protease 1 precursor (RNKP-1) (Granzyme B)	0.1465		0.0433	0.2792	0.0846

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1565970</i>	similar to Granzyme-like protein II precursor (GLP 2) (Mast cell protease X) (rMCP-X) (rMCP-10)	0.1439		0.0285	0.2819	0.0645
<i>Rgd1564240</i>	hypothetical protein	0.1416		0.0283	0.2246	0.0995
<i>Sostdc1</i>	uterine sensitization-associated gene 1 protein	0.1392		0.0004	0.5247	0.1720
<i>Vegp1</i>	von Ebners gland protein 1	0.1346		0.0444	0.2408	0.1120
<i>F5</i>	coagulation factor 5	0.1258		0.0001	0.4949	0.1070
<i>Tpsb2</i>	mast cell protease 6	0.1256		0.0028	0.3326	0.0814
<i>Gpr151</i>	G protein-coupled receptor 151	0.1243		0.0200	0.2186	0.0721
<i>Klkb1</i>	kallikrein B, plasma 1	0.0667		0.0171	0.0796	0.2250
<i>Loc679314</i>	hypothetical protein	0.0253		0.0120	0.0290	0.2020
Estradiol Only						
<i>Wbp2</i>	WW domain binding protein 2	13.1713		0.1030	29.4540	0.0350
<i>Smarcd2</i>	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 2	14.5058		0.0730	28.5803	0.0314
<i>L3mbtl2</i>	I(3)mbt-like 2	14.0204		0.0992	20.7058	0.0418
<i>Rprd1b</i>	similar to Protein C20orf77 homolog	7.4513		0.0825	9.4537	0.0484
<i>Ubqln2</i>	similar to ubiquilin 2	6.2349		0.0574	9.1140	0.0334
<i>Ube2z</i>	ubiquitin-conjugating enzyme E2Z (putative)	7.8841		0.0733	8.9357	0.0436
<i>Ctns</i>	similar to Cystinosin	7.6293		0.0722	8.6468	0.0306
<i>Ccdc32</i>	coiled-coil domain containing 32	6.4426		0.0508	8.4534	0.0463
<i>Ctsd</i>	cathepsin D	4.2193		0.0503	7.9773	0.0313
<i>Arhgef4</i>	similar to Rho guanine nucleotide exchange factor 4 isoform a	5.1136		0.0557	7.2475	0.0465
<i>Harbi11</i>	similar to Protein KIAA0652	5.8000		0.0684	7.2356	0.0320

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Nipa4</i>	similar to non imprinted in Prader-Willi/Angelman syndrome 2 isoform a	4.9469		0.0631	7.0109	0.0212
<i>Dhx35</i>	similar to DEAH (Asp-Glu-Ala-His) box polypeptide 35	6.4500		0.0721	6.9356	0.0279
<i>Loc685601</i>	similar to MICAL CG33208-PB, isoform B	6.7000		0.1240	6.7037	0.0429
<i>Slc15a4</i>	peptide/histidine transporter	5.3553		0.0526	6.4591	0.0165
<i>Otud5</i>	OTU domain containing 5	4.9812		0.0747	6.4311	0.0333
<i>Coro1c</i>	similar to coronin, actin binding protein 1C	4.7756		0.0865	6.3375	0.0417
<i>Slc4a7</i>	solute carrier family 4, sodium bicarbonate cotransporter, member 7	2.4774		0.0609	6.2419	0.0166
<i>Loc691254</i>	hypothetical protein	2.3246		0.0647	5.7683	0.0190
<i>Dock1</i>	similar to Deducator of cytokinesis protein 1 (180 kDa protein downstream of CRK) (DOCK180) isoform 2	6.7958		0.0797	5.7325	0.0404
<i>Htr2c</i>	5-hydroxytryptamine (serotonin) receptor 2C	5.0071		0.0623	5.6973	0.0240
<i>Ino80b</i>	similar to PAP-1 binding protein	3.5479		0.1130	5.6303	0.0498
<i>Meis1</i>	similar to Homeobox protein Meis1 (Myeloid ecotropic viral integration site 1) isoform 2	3.9018		0.1510	5.6259	0.0261
<i>Ptchd1</i>	similar to patched domain containing 1	3.7249		0.1120	5.6190	0.0222
<i>Eif2c2</i>	GERp95	8.3208		0.0615	5.6112	0.0416
<i>Dullard</i>	similar to Dullard homolog	4.6269		0.0506	5.5869	0.0167
<i>Camk1g</i>	calcium/calmodulin-dependent protein kinase I gamma	4.1407		0.0542	5.4710	0.0344
<i>Pde8b</i>	cAMP-specific cyclic nucleotide phosphodiesterase PDE8	6.8056		0.0569	5.4668	0.0462
<i>Ccnk</i>	similar to cyclin K	4.5642		0.0976	5.3433	0.0175

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Stim1</i>	similar to stromal interaction molecule 1	5.0196		0.1020	5.3106	0.0435
<i>Tchp</i>	similar to trichoplein, keratin filament binding	3.4267		0.1140	5.1479	0.0406
<i>Nfia</i>	nuclear factor I/A	5.3002		0.0716	5.1067	0.0383
<i>Arhgef2</i>	rho/rac guanine nucleotide exchange factor (GEF) 2	7.0773		0.0921	4.9177	0.0368
<i>Clcn7</i>	chloride channel 7	5.9367		0.0629	4.9172	0.0213
<i>Loc689593</i>	similar to DnaJ homolog subfamily B member 10 (mDJ8) isoform 1	3.8573		0.0669	4.7703	0.0346
<i>Fam120c</i>	similar to Protein CXorf17 homolog	2.4695		0.0694	4.7684	0.0176
<i>Loc679830</i>	hypothetical protein	2.1566		0.0583	4.7372	0.0132
<i>Fbxo32</i>	f-box only protein 32	2.7111		0.1090	4.7352	0.0099
<i>Rgd1565616</i>	hypothetical protein	5.9255		0.0800	4.6737	0.0313
<i>Oxsr1</i>	similar to Serine/threonine-protein kinase OSR1 (Oxidative stress-responsive 1 protein)	4.9890		0.0995	4.6207	0.0175
<i>Uvrag</i>	similar to UV radiation resistance associated	5.4147		0.0617	4.6202	0.0289
<i>Dlst</i>	dihydrolipoamide S-succinyltransferase (E2 component of 2-oxo-glutarate complex)	4.1104		0.0861	4.6075	0.0351
<i>Nr3c1</i>	glucocorticoid receptor	3.3027		0.0814	4.5962	0.0324
<i>Rgd1311429</i>	similar to CG4699-PA, isoform A isoform 1	5.8395		0.0623	4.5228	0.0411
<i>Dis3l2</i>	similar to CG16940-PA, isoform A	4.0243		0.0655	4.4920	0.0327
<i>Brwd3</i>	similar to bromo domain-containing protein disrupted in leukemia	2.4270		0.0512	4.4895	0.0118
<i>Loc685834</i>	similar to zinc finger protein 740	4.5985		0.0910	4.4128	0.0379

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Ctnnd1</i>	similar to Catenin delta-1 (p120 catenin) (p120(ctn)) (Cadherin-associated Src substrate) (CAS) (p120(cas))	4.8806		0.0724	4.4068 0.0314
<i>Poll</i>	DNA polymerase lambda	3.3511		0.1320	4.3696 0.0500
<i>Loc682343</i>	similar to Zinc finger BED domain containing protein 4	1.9621		0.1350	4.3106 0.0148
<i>Car12</i>	carbonic anhydrase 12	5.8115		0.0602	4.3079 0.0345
<i>Top3b</i>	similar to DNA topoisomerase III beta-1	5.0716		0.0645	4.2125 0.0403
<i>Gpr123</i>	similar to G protein-coupled receptor 123	3.2072		0.1870	4.1836 0.0405
<i>Rgd1562481</i>	hypothetical protein	1.0312		0.2860	4.1564 0.0262
<i>Cbara1</i>	calcium binding atopy-related autoantigen 1	3.2015		0.0789	4.1533 0.0478
<i>Dullard</i>	similar to Dullard homolog	3.6960		0.0646	4.0481 0.0272
<i>Sfrs4</i>	similar to Splicing factor, arginine/serine-rich 4 isoform 4	3.2898		0.0547	4.0180 0.0217
<i>Nploc4</i>	nuclear protein localization 4	4.0181		0.0505	4.0108 0.0361
<i>Loc680039</i>	hypothetical protein isoform 2	4.7777		0.0700	4.0032 0.0376
<i>Tgfb3</i>	transforming growth factor, beta 3	3.5678		0.1280	3.9266 0.0464
<i>Stx6</i>	syntaxin 6	2.9693		0.1320	3.9256 0.0457
<i>Tmem27</i>	kidney-specific membrane protein	0.6023		0.5070	3.9100 0.0167
<i>Rgd1561176</i>	similar to Programmed cell death 6-interacting protein (ALG-2-interacting protein X) (ALG-2-interacting protein 1) (E2F1-inducible protein) (Eig2)	4.9373		0.0662	3.8941 0.0279
<i>Cry2</i>	cryptochrome 2 (photolyase-like)	3.5368		0.1030	3.8707 0.0339
<i>Enpp4</i>	similar to ectonucleotide pyrophosphatase/phosphodiesterase 4 (putative function)	4.1372		0.0511	3.8640 0.0309

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Klhl36</i>	hypothetical protein LOC498957	6.1317		0.0535	3.8317	0.0434
<i>Stk32a</i>	similar to serine/threonine kinase 32A	1.9162		0.2490	3.8310	0.0060
<i>Rora</i>	similar to RAR-related orphan receptor A isoform d isoform 2	1.7237		0.1110	3.8055	0.0087
<i>Mgc114520</i>	hypothetical protein LOC315915	2.2883		0.4660	3.7337	0.0431
<i>Mtmr12</i>	phosphatidylinositol-3-phosphatase associated protein	1.9257		0.1700	3.7183	0.0170
<i>Rgd1310641</i>	hypothetical protein LOC366347	2.7237		0.1360	3.7030	0.0295
<i>Pcif1</i>	similar to phosphorylated CTD interacting factor PCIF1	3.0886		0.0784	3.6368	0.0489
<i>Loc688968</i>	similar to SGT1 protein homolog (Ecdysoneless homolog)	1.2132		0.1690	3.6254	0.0148
<i>Rap1gds1</i>	similar to RAP1, GTP-GDP dissociation stimulator 1	1.4305		0.1380	3.6141	0.0020
<i>Tiparp</i>	similar to TCDD-inducible poly(ADP-ribose) polymerase	2.5013		0.1430	3.5857	0.0030
<i>Elmo1</i>	similar to engulfment and cell motility 1 isoform 1	4.1748		0.0637	3.5757	0.0384
<i>Wdfy3</i>	similar to WD repeat and FYVE domain containing 3 isoform 1	1.2533		0.1010	3.5615	0.0172
<i>Pmm2</i>	similar to Phosphomannomutase 2 (PMM 2)	2.6766		0.0912	3.5608	0.0326
<i>Eml1</i>	echinoderm microtubule associated protein like 1	3.7392		0.0846	3.5359	0.0434
<i>Sorbs1</i>	similar to sorbin and SH3 domain containing 1 isoform 3	5.0724		0.0614	3.5183	0.0302
<i>Rora</i>	similar to RAR-related orphan receptor A isoform d isoform 3	1.4919		0.2300	3.5096	0.0260

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tbc1d5</i>	similar to TBC1 domain family, member 5	2.8415		0.0508	3.4941	0.0197
<i>Loc498084</i>	hypothetical protein LOC498084	1.5843		0.2080	3.4589	0.0035
<i>Pcdhb20</i>	similar to Protocadherin beta 14 precursor (PCDH-beta14)	4.4408		0.0811	3.4586	0.0430
<i>Htr1f</i>	5-hydroxytryptamine (serotonin) receptor 1F	1.5144		0.0666	3.4396	0.0050
<i>Rap1gds1</i>	similar to Rap1 GTPase-GDP dissociation stimulator 1 (SMG P21 stimulatory GDP/GTP exchange protein) (SMG GDS protein) (Exchange factor smgGDS)	1.5849		0.1640	3.4242	0.0104
<i>Ptpn4</i>	similar to protein tyrosine phosphatase, non-receptor type 4	2.4537		0.0643	3.4187	0.0120
<i>Nol9</i>	similar to CG8414-PA	4.3977		0.0620	3.4093	0.0261
<i>Loc680503</i>	hypothetical protein	2.1996		0.0521	3.3552	0.0054
<i>Loc679031</i>	similar to Mblk1-related protein-2	1.9661		0.0639	3.3243	0.0263
<i>Ttc3</i>	similar to tetratricopeptide repeat domain 3	2.2307		0.1320	3.2882	0.0233
<i>Slc22a15</i>	similar to solute carrier family 22 (organic cation transporter), member 15	4.9794		0.0561	3.2703	0.0469
<i>Rcor1</i>	similar to REST corepressor 1	1.4107		0.2960	3.2624	0.0321
<i>Ppp1r3c</i>	protein phosphatase 1, regulatory (inhibitor) subunit 3C	3.3435		0.0625	3.2521	0.0412
<i>Ret</i>	ret proto-oncogene	3.0261		0.0711	3.2287	0.0233
<i>Pppde1</i>	hypothetical protein LOC289277	1.4349		0.3350	3.2259	0.0012
<i>Hadha</i>	similar to hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), alpha subunit	2.8966		0.0514	3.2067	0.0217

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tex2</i>	similar to testis expressed gene 2 isoform 1	3.1178		0.0781	3.1921	0.0445
<i>Loc679869</i>	similar to transcription factor 7-like 2, T-cell specific, HMG-box isoform 10	2.9918		0.0508	3.1516	0.0122
<i>Gpr61</i>	similar to G protein-coupled receptor 61	2.9407		0.1220	3.1179	0.0370
<i>Hmbox1</i>	similar to F54A5.1	1.7274		0.1840	3.1123	0.0270
<i>Pcdh11x</i>	similar to protocadherin 11 X-linked isoform b precursor	1.2474		0.1570	3.0884	0.0108
<i>Cln6</i>	similar to ceroid-lipofuscinosis, neuronal 6	2.5605		0.0983	3.0780	0.0473
<i>Ssbp3</i>	single stranded DNA binding protein 3	2.5069		0.0864	3.0637	0.0426
<i>Gpx3</i>	glutathione peroxidase 3 precursor	1.5692		0.0864	3.0615	0.0013
<i>Loc683577</i>	similar to odd Oz/ten-m homolog 1	1.7441		0.1230	3.0550	0.0399
<i>Loc684297</i>	similar to PHD finger protein 8	1.7822		0.0989	3.0531	0.0178
<i>Pou2f1</i>	similar to POU domain, class 2, transcription factor 1 (Octamer-binding transcription factor 1) (Oct-1) (OTF-1) (NF-A1)	2.7557		0.0961	3.0483	0.0148
<i>Rgd1311378</i>	hypothetical protein	3.0167		0.0765	3.0194	0.0467
<i>Rgd1563309</i>	similar to diacylglycerol kinase, delta 130kDa isoform 1	4.4646		0.1010	3.0123	0.0215
<i>Arl13b</i>	similar to ADP-ribosylation factor-like 2-like 1	1.6615		0.1900	2.9841	0.0227
<i>Qser1</i>	hypothetical protein	1.4974		0.2080	2.9831	0.0324
<i>Lrrc1</i>	hypothetical protein LOC367113	2.7312		0.0644	2.9722	0.0185
<i>Loc679869</i>	similar to transcription factor 7-like 2, T-cell specific, HMG-box isoform 2	2.6724		0.0840	2.9459	0.0124
<i>Cables1</i>	similar to Cdk5 and Abl enzyme substrate 1	2.8917		0.0592	2.9447	0.0404
<i>Loc500625</i>	hypothetical protein LOC500625	1.8424		0.1010	2.9313	0.0149

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Larp1</i>	similar to Ia related protein isoform 2	3.3012		0.0543	2.9293	0.0200
<i>Ric8b</i>	resistance to inhibitors of cholinesterase 8B	3.2019		0.0793	2.9257	0.0366
<i>Srp68</i>	similar to signal recognition particle 68	2.8529		0.1010	2.9186	0.0284
<i>Rgd1307410</i>	hypothetical protein isoform 1	2.4798		0.0875	2.9037	0.0383
<i>Rgd735029</i>	hypothetical protein LOC307480	2.5836		0.0974	2.8764	0.0241
<i>Npepps</i>	similar to aminopeptidase puromycin sensitive	2.0694		0.0978	2.8570	0.0155
<i>41341</i>	similar to membrane-associated ring finger (C3HC4) 8	4.0935		0.0612	2.8452	0.0202
<i>Clock</i>	clock homolog	2.0141		0.0503	2.8413	0.0302
<i>Tsc22d2</i>	similar to TSC22 domain family protein 2 (TSC22-related-inducible leucine zipper protein 4)	1.8241		0.3930	2.8234	0.0384
<i>Acaca</i>	acetyl-coenzyme A carboxylase alpha	4.0256		0.0605	2.8089	0.0485
<i>Slco2b1</i>	solute carrier organic anion transporter family, member 2b1	2.1076		0.1760	2.8032	0.0488
<i>Rgd1311493</i>	similar to ataxin 7-like 3	1.4080		0.1030	2.7914	0.0085
<i>Rora</i>	similar to RAR-related orphan receptor A isoform d	1.2668		0.3350	2.7692	0.0308
<i>N4bp1</i>	similar to Nedd4 binding protein 1	1.4897		0.0758	2.7489	0.0054
<i>Slc17a7</i>	solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7	3.1395		0.0891	2.7464	0.0454
<i>Loc679869</i>	similar to Transcription factor 7-like 2 (HMG box transcription factor 4) (T-cell-specific transcription factor 4) (TCF-4) (hTCF-4) isoform 6	2.4000		0.1650	2.7341	0.0295

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgs11</i>	similar to Regulator of G-protein signaling 11 (RGS11)	2.7731		0.0713	2.7213	0.0467
<i>Rgd1310862</i>	similar to CG13624-PC, isoform C	1.3042		0.2840	2.7177	0.0311
<i>Mak</i>	male germ cell-associated kinase	1.1922		0.9350	2.7063	0.0253
<i>Pbx3</i>	similar to Pre-B-cell leukemia transcription factor 3 (Homeobox protein PBX3) isoform 1	2.6472		0.0910	2.7041	0.0403
<i>Setd5</i>	similar to CG9007-PA isoform 1	3.3755		0.1000	2.6983	0.0372
<i>Meis1</i>	similar to Homeobox protein Meis1 (Myeloid ecotropic viral integration site 1) isoform 1	1.9386		0.2470	2.6982	0.0346
<i>Dnm3</i>	testicular dynamin	1.8260		0.0566	2.6848	0.0049
<i>Hmox3</i>	heme oxygenase 3	1.8901		0.0796	2.6800	0.0181
<i>Efhb</i>	similar to EF hand domain family, member B	0.9475		0.9240	2.6797	0.0460
<i>Hipk2</i>	similar to Homeodomain-interacting protein kinase 2 (Nuclear body-associated kinase 1) (Sialophorin tail-associated nuclear serine/threonine-protein kinase) isoform 3	2.2029		0.1970	2.6732	0.0278
<i>Lrch1</i>	similar to Leucine-rich repeats and calponin homology domain-containing protein 1 (Calponin homology domain-containing protein 1)	3.1629		0.0620	2.6374	0.0422
<i>Lnpep</i>	aminopeptidase Vp165	1.8683		0.0809	2.6349	0.0114
<i>Rcsd1</i>	similar to protein kinase substrate MK2S4 isoform 1	2.5840		0.0834	2.6273	0.0230
<i>Pde3b</i>	phosphodiesterase 3B	2.0697		0.0658	2.6139	0.0107

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Col6a1</i>	similar to Collagen alpha-1(VI) chain precursor	0.9687		0.9370	2.5998	0.0115
<i>Cbl</i>	similar to Casitas B-lineage lymphoma	1.7034		0.0642	2.5965	0.0160
<i>Clasp1</i>	similar to CLIP-associating protein 1	3.2938		0.0872	2.5751	0.0471
<i>Snrnp70</i>	similar to U1 small nuclear ribonucleoprotein 70 kDa	2.7033		0.0548	2.5724	0.0416
<i>Snap29</i>	synaptosomal-associated protein 29	2.3131		0.0505	2.5705	0.0271
<i>Srrm2</i>	similar to serine/arginine repetitive matrix 2	2.6292		0.1140	2.5591	0.0311
<i>Cyp4f5</i>	cytochrome P450 4F5	2.2206		0.2770	2.5535	0.0423
<i>Rgd1565416</i>	similar to Talin-2 isoform 1	2.8099		0.0679	2.5419	0.0488
<i>Mga</i>	similar to MAX-interacting protein	2.4455		0.0922	2.5355	0.0467
<i>Rgd1562426</i>	similar to UDP-glucose:glycoprotein glucosyltransferase 2	1.6670		0.1330	2.5333	0.0037
<i>Rgd1564964</i>	similar to pleckstrin homology domain interacting protein	1.4824		0.2810	2.5314	0.0333
<i>Pcdhb19</i>	similar to Protocadherin beta 11 precursor (PCDH-beta11)	2.8839		0.0654	2.5292	0.0494
<i>Enth</i>	similar to enthoprotin isoform 1	3.0845		0.1030	2.5283	0.0485
<i>Loc679869</i>	similar to transcription factor 7-like 2 (T-cell specific, HMG-box) isoform 2	2.7910		0.0539	2.5179	0.0242
<i>Rnf144a</i>	similar to mKIAA0161 protein	2.6761		0.0899	2.5042	0.0098
<i>Irf2</i>	interferon regulatory factor 2	2.5369		0.0708	2.5012	0.0316
<i>Epb4.1l5</i>	erythrocyte protein band 4.1-like 5	2.6618		0.1350	2.4982	0.0090
<i>Lss</i>	lanosterol synthase	2.4079		0.1510	2.4879	0.0278
<i>Gna11</i>	guanine nucleotide binding protein, alpha 11	1.6211		0.1140	2.4725	0.0085
<i>Loc687600</i>	similar to B-cell CLL/lymphoma 7A	3.0371		0.1170	2.4654	0.0363

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ino80e</i>	coiled-coil domain containing 95	1.6621		0.1500	2.4603	0.0365
<i>Smurf2</i>	similar to SMAD specific E3 ubiquitin protein ligase 2	1.9056		0.0659	2.4574	0.0196
<i>Loc681449</i>	similar to SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily C member 1 (SWI/SNF complex 155 kDa subunit) (BRG1-associated factor 155) (SWI3-related protein) isoform 3	2.4015		0.0534	2.4503	0.0131
<i>Cul5</i>	cullin 5	1.3064		0.3310	2.4460	0.0283
<i>Stox2</i>	similar to storkhead box 2	1.3438		0.3480	2.4392	0.0077
<i>Map4k4</i>	similar to mitogen-activated protein kinase kinase kinase 4 isoform 2 isoform 6	2.8651		0.1700	2.4358	0.0374
<i>Slc45a4</i>	similar to proton-associated sugar transporter A	2.2575		0.1010	2.4330	0.0248
<i>Rgd1564140</i>	hypothetical protein	1.6828		0.4330	2.4312	0.0214
<i>Elovl6</i>	ELOVL family member 6, elongation of long chain fatty acids	1.3944		0.0756	2.4251	0.0188
<i>Akap8l</i>	A kinase (PRKA) anchor protein 8-like	1.7837		0.1680	2.4152	0.0348
<i>Rftn1</i>	similar to raft-linking protein	2.7823		0.0654	2.4105	0.0456
<i>Mtmr1</i>	similar to Myotubularin-related protein 1	1.3907		0.2090	2.4094	0.0149
<i>Loc679525</i>	hypothetical protein	2.2633		0.0669	2.4065	0.0284
<i>Sgk3</i>	similar to serum/glucocorticoid regulated kinase 3	1.5381		0.6360	2.4023	0.0168
<i>Rab11b</i>	RAB11B, member RAS oncogene family	1.9077		0.0730	2.4009	0.0402
<i>Vps11</i>	similar to Vacuolar protein sorting 11	3.0374		0.0577	2.3954	0.0476
<i>Zbtb16</i>	zinc finger and BTB domain containing 16	0.7761		0.9280	2.3897	0.0227

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Zfp385b</i>	similar to zinc finger protein 533 isoform 4	3.0518		0.0750	2.3846	0.0411
<i>Pnmal2</i>	similar to paraneoplastic antigen MA1	0.8596		0.9850	2.3744	0.0019
<i>Kcnk4</i>	TRAAK	2.3568		0.0924	2.3636	0.0483
<i>Zmym3</i>	similar to Zinc finger MYM-type protein 3 (Zinc finger protein 261) (DXHXS6673E protein) isoform 1	3.4334		0.0564	2.3610	0.0368
<i>Ncoa5</i>	similar to nuclear receptor coactivator 5	2.6601		0.0934	2.3546	0.0389
<i>Rgd1566036</i>	hypothetical protein	2.3190		0.0700	2.3544	0.0439
<i>Cacna1e</i>	calcium channel, voltage-dependent, L type, alpha 1E subunit	1.4721		0.0903	2.3506	0.0137
<i>Rgd1561161</i>	similar to melanoma-associated chondroitin sulfate proteoglycan 4	1.2858		0.4530	2.3501	0.0464
<i>Enth</i>	similar to Epsin-4 (Epsin-related protein) (EpsinR) (Enthoprotin) isoform 4	3.2623		0.0588	2.3491	0.0338
<i>Arnt2</i>	aryl hydrocarbon receptor nuclear translocator 2	2.4201		0.0802	2.3424	0.0331
<i>Prr5l</i>	hypothetical protein LOC362171	3.0179		0.0596	2.3421	0.0470
<i>Pnma3</i>	similar to paraneoplastic antigen MA3	2.9519		0.0676	2.3413	0.0307
<i>Loc679221</i>	similar to Microtubule-associated protein RP/EB family member 2 (APC-binding protein EB2) (End-binding protein 2) (EB2) isoform 2	2.6033		0.0676	2.3302	0.0257
<i>Slc25a16</i>	similar to solute carrier family 25 (mitochondrial carrier, Graves disease autoantigen), member 16	1.7114		0.0640	2.3292	0.0122
<i>Pnmal1</i>	similar to paraneoplastic antigen MA1	2.6360		0.1470	2.3204	0.0459
<i>Loc691984</i>	similar to Glypican-6 precursor	2.0432		0.0703	2.3095	0.0242

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Camta1</i>	similar to calmodulin-binding transcription activator 1	2.4388		0.0798	2.3041	0.0358
<i>Lrrc9</i>	similar to T05H4.3 isoform 1	1.5640		0.1320	2.3027	0.0418
<i>Rgd1564686</i>	similar to kelch-like 2, Mayven; mayven; kelch (Drosophila)-like 2 (Mayven)	1.4839		0.1720	2.2961	0.0043
<i>Slc6a6</i>	solute carrier family 6 (neurotransmitter transporter, taurine), member 6	1.6616		0.0933	2.2742	0.0249
<i>Ank3</i>	ankyrin 3, epithelial isoform 2	2.4273		0.0568	2.2724	0.0438
<i>Myh4</i>	myosin, heavy polypeptide 4, skeletal muscle	1.8595		0.0525	2.2582	0.0103
<i>Odz4</i>	similar to odd Oz/ten-m homolog 4	1.8015		0.1630	2.2580	0.0094
<i>Rgd1559904</i>	similar to virilizer CG3496-PA isoform 1	3.0476		0.0795	2.2571	0.0412
<i>Rgd1560884</i>	hypothetical protein	1.6948		0.1390	2.2538	0.0130
<i>Ankrd26</i>	similar to ankyrin repeat domain 26	2.2936		0.0525	2.2229	0.0159
<i>Rgd1560620</i>	similar to CCCTC-binding factor	2.1665		0.1310	2.2224	0.0398
<i>Zmynd11</i>	BS69 protein delta isoform	2.7048		0.0860	2.2196	0.0428
<i>Setx</i>	similar to senataxin	1.4620		0.0462	2.2168	0.0098
<i>Sh3rf1</i>	putative scaffolding protein POSH	2.2948		0.1920	2.2132	0.0447
<i>Pstpip2</i>	similar to Proline-serine-threonine phosphatase-interacting protein 2 (Macrophage actin-associated tyrosine-phosphorylated protein) (pp37)	1.7027		0.1050	2.2120	0.0114
<i>Zfyve20</i>	similar to zinc finger, FYVE domain containing 20	2.6290		0.0605	2.2092	0.0412
<i>Sppl2a</i>	similar to signal peptide peptidase-like 2A	1.7896		0.0543	2.2072	0.0275
<i>Cables2</i>	similar to Cdk5 and Abl enzyme substrate 2	2.6660		0.0794	2.2061	0.0344
<i>Cdh20</i>	cadherin 20	3.0110		0.0587	2.2051	0.0440
<i>Pgpep1</i>	pyroglutamyl-peptidase I	1.9083		0.1200	2.2024	0.0198

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Gab2</i>	growth factor receptor bound protein 2-associated protein 2	1.2498		0.4400	2.2011	0.0189
<i>Cpne6</i>	similar to Copine-6 (Copine VI) (Neuronal-copine) (N-copine)	1.8186		0.0585	2.1888	0.0227
<i>Kcna2</i>	potassium voltage-gated channel, shaker-related subfamily, member 2	1.6049		0.0896	2.1887	0.0377
<i>Rgd1311095</i>	similar to without children CG5965-PA	1.1629		0.2520	2.1824	0.0031
<i>Taok1</i>	serine/threonine protein kinase TAO1	1.7150		0.1030	2.1812	0.0296
<i>Loc682937</i>	similar to WAS protein family, member 3	1.3059		0.1380	2.1797	0.0047
<i>Erc1</i>	Rab6 interacting protein 2	1.2200		0.1110	2.1784	0.0144
<i>Loc679869</i>	similar to transcription factor 7-like 2, T-cell specific, HMG-box isoform 1	2.3297		0.0692	2.1782	0.0229
<i>Loc691862</i>	hypothetical protein	1.5807		0.4130	2.1639	0.0083
<i>Susd2</i>	similar to sushi domain containing 2	1.8226		0.1580	2.1568	0.0463
<i>Loc688455</i>	hypothetical protein	1.5253		0.4520	2.1563	0.0102
<i>Madd</i>	MAP-kinase activating death domain	1.8810		0.0735	2.1391	0.0271
<i>Loc679869</i>	similar to Transcription factor 7-like 2 (HMG box transcription factor 4) (T-cell-specific transcription factor 4) (TCF-4) (hTCF-4) isoform 1	1.9423		0.2640	2.1385	0.0388
<i>Slc16a14</i>	similar to solute carrier family 16 (monocarboxylic acid transporters), member 14	1.8470		0.0662	2.1337	0.0395
<i>Rbpj</i>	similar to Recombining binding protein suppressor of hairless (J kappa-recombination signal binding protein) (RBP-J kappa) isoform 1	0.8219		0.9220	2.1316	0.0425
<i>Loc683007</i>	similar to melanoma inhibitory activity 3	2.1472		0.0609	2.1226	0.0264

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Usp36</i>	similar to ubiquitin specific protease 36	2.7847		0.1740	2.1222	0.0338
<i>Rgd1564117</i>	similar to NHS-like 1	2.7780		0.0913	2.1210	0.0277
<i>Rgd1562608</i>	hypothetical protein	2.1908		0.0601	2.1189	0.0218
<i>Prox1</i>	similar to Homeobox prospero-like protein PROX1 (PROX 1)	2.2891		0.1300	2.1167	0.0370
<i>Slc8a2</i>	solute carrier family 8 (sodium/calcium exchanger), member 2	1.8182		0.1180	2.1161	0.0453
<i>Rgd1564259</i>	hypothetical protein	1.6339		0.0852	2.1152	0.0236
<i>Cbl11</i>	similar to Casitas B-lineage lymphoma-like 1	1.7635		0.0727	2.1134	0.0184
<i>Stk38</i>	serine/threonine kinase 38	2.3931		0.0683	2.1084	0.0456
<i>Poln</i>	similar to DNA polymerase N	1.7856		0.0598	2.1036	0.0218
<i>Nhlrc2</i>	similar to NHL repeat containing 2	1.9590		0.0796	2.0932	0.0288
<i>Rgd1560242</i>	hypothetical protein	1.0562		0.8630	2.0920	0.0023
<i>Ccdc106</i>	hypothetical protein	1.9732		0.0788	2.0858	0.0444
<i>Rgd1311095</i>	similar to without children CG5965-PA	1.2876		0.2200	2.0780	0.0245
<i>Tpp1</i>	tripeptidyl-peptidase I	2.3459		0.0592	2.0705	0.0409
<i>Il23r</i>	similar to interleukin 23 receptor	1.1380		0.3420	2.0704	0.0354
<i>Hpcal4</i>	neural visinin-like Ca ²⁺ -binding protein type 2	1.0191		0.3670	2.0678	0.0309
<i>Rgd1308759</i>	similar to CG4203-PA	1.7270		0.2040	2.0626	0.0463
<i>Rgd1308722</i>	similar to UPF0054 protein C21orf57 homolog	1.5426		0.1860	2.0592	0.0300
<i>Tm7sf3</i>	transmembrane 7 superfamily member 3	1.9868		0.0866	2.0562	0.0328
<i>Itsn1</i>	similar to Intersectin-1 (EH domain and SH3 domain regulator of endocytosis 1)	2.4919		0.0992	2.0507	0.0395
<i>Nap5</i>	similar to Nck-associated protein 5	1.9539		0.0573	2.0468	0.0251
<i>Als2cr12</i>	hypothetical protein LOC316413	1.6677		0.1370	2.0463	0.0197

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Nepn</i>	similar to rickets CG8930-PA, isoform A	0.6600		0.3180	2.0402	0.0064
<i>Kctd18</i>	similar to potassium channel tetramerisation domain containing 18	2.2453		0.0537	2.0387	0.0305
<i>Urb2</i>	similar to Protein KIAA0133	2.0556		0.0728	2.0382	0.0475
<i>Ptpn11</i>	protein tyrosine phosphatase, non-receptor type 11	1.1240		0.5300	2.0315	0.0401
<i>Pstpip2</i>	similar to Proline-serine-threonine phosphatase-interacting protein 2 (Macrophage actin-associated tyrosine-phosphorylated protein) (pp37)	1.8841		0.0610	2.0299	0.0195
<i>Loc246295</i>	similar to glycine-, glutamate-, thienylcyclohexylpiperidine-binding protein	1.4586		0.0512	2.0289	0.0237
<i>Hp1bp3</i>	heterochromatin protein 1, binding protein 3	2.0616		0.0607	2.0277	0.0349
<i>Loc685842</i>	similar to CG13990-PA	1.1173		0.4210	2.0258	0.0213
<i>Wwp2</i>	similar to WW domain-containing protein 2	1.9807		0.0706	2.0243	0.0383
<i>Sfrs4</i>	similar to Splicing factor, arginine/serine-rich 4 isoform 2	1.8954		0.1300	2.0238	0.0396
<i>Odz3</i>	similar to odd Oz/ten-m homolog 3	2.2599		0.0821	2.0209	0.0402
<i>Snx11</i>	sorting nexin 11	2.1334		0.0511	2.0180	0.0116
<i>Nyw1</i>	similar to WD repeat domain 5B	2.0508		0.0962	2.0129	0.0298
<i>Loc689240</i>	similar to amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 16	1.6782		0.0699	2.0124	0.0260
<i>Adamts3</i>	similar to ADAM metallopeptidase with thrombospondin type 1 motif, 3 proprotein	2.5206		0.0660	2.0122	0.0358

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688553</i>	hypothetical protein	1.9493		0.0518	2.0117	0.0349
<i>Eif2c3</i>	similar to eukaryotic translation initiation factor 2C, 3 isoform a	1.5070		0.1900	2.0113	0.0361
<i>Zmynd11</i>	BS69 protein alpha isoform	2.5108		0.1280	2.0103	0.0444
<i>Hivep2</i>	human immunodeficiency virus type I enhancer binding protein 2	2.1205		0.0540	2.0083	0.0466
<i>Nlrp1</i>	similar to NACHT, leucine rich repeat and PYD containing 1	1.5152		0.0914	2.0077	0.0242
<i>Abhd12</i>	hypothetical protein LOC499913	1.7358		0.1030	2.0074	0.0482
<i>Loc688749</i>	similar to Tubby-related protein 3 (Tubby-like protein 3)	1.9083		0.0710	2.0067	0.0274
<i>Pi4k2a</i>	phosphatidylinositol 4-kinase type 2 alpha	1.8169		0.1410	2.0049	0.0152
<i>Bcr</i>	similar to breakpoint cluster region isoform 1	1.9121		0.3430	2.0020	0.0294
<i>Zfyve9</i>	similar to zinc finger, FYVE domain containing 9 isoform 1 isoform 1	1.5260		0.0826	2.0014	0.0130
<i>Loc688373</i>	similar to fatty acid 2-hydroxylase	1.3290		0.1030	1.9975	0.0295
<i>Loc680503</i>	hypothetical protein	1.3244		0.2540	1.9966	0.0275
<i>Igsf11</i>	immunoglobulin superfamily, member 11	2.6132		0.0671	1.9955	0.0414
<i>Gorasp2</i>	golgi reassembly stacking protein 2	1.9991		0.1110	1.9940	0.0454
<i>Pdcl2</i>	similar to phosducin-like 2	1.7596		0.0524	1.9936	0.0403
<i>Serinc2</i>	tumor differentially expressed 2-like	1.7703		0.0712	1.9905	0.0285
<i>Ndst2</i>	similar to Bifunctional heparan sulfate N-deacetylase/N-sulfotransferase 2 (Glucosaminyl N-deacetylase/N-sulfotransferase 2) (NDST-2) (N-heparan sulfate sulfotransferase 2) (N-HSST 2) (Mndns)	2.5633		0.0710	1.9851	0.0491

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Whdc1</i>	similar to junction-mediating and regulatory protein	1.5545		0.0586	1.9833	0.0253
<i>Bicd1</i>	similar to bicaudal D homolog 1 isoform 1	1.5332		0.1980	1.9722	0.0339
<i>Psen1</i>	presenilin 1	2.0526		0.1450	1.9696	0.0326
<i>Mef2a</i>	myocyte-specific enhancer factor 2A	1.6005		0.0809	1.9628	0.0406
<i>Upf2</i>	similar to UPF2 regulator of nonsense transcripts homolog	1.5774		0.0974	1.9568	0.0309
<i>Lekr1</i>	hypothetical protein	1.2644		0.1390	1.9563	0.0490
<i>Hook3</i>	similar to Hook homolog 3	1.0461		0.5040	1.9545	0.0492
<i>Rgd1311251</i>	hypothetical protein LOC315665	1.2522		0.2050	1.9480	0.0178
<i>Sec31b</i>	similar to <i>S. cerevisiae</i> SEC31-like 2 isoform a	1.9105		0.0769	1.9394	0.0325
<i>Ttc29</i>	hypothetical protein LOC291944	1.8966		0.0849	1.9384	0.0324
<i>Cd84</i>	similar to CD84 antigen	0.6934		0.5170	1.9383	0.0463
<i>Adap2</i>	Centaurin-alpha2 protein	1.5876		0.2040	1.9331	0.0439
<i>Phactr2</i>	phosphatase and actin regulator 2	1.4661		0.0678	1.9311	0.0296
<i>Btbd9</i>	BTB (POZ) domain containing 9	2.0996		0.0704	1.9277	0.0201
<i>Add2</i>	adducin 2 (beta)	1.4961		0.1430	1.9272	0.0176
<i>Synpo2</i>	similar to Synaptopodin-2 (Myopodin)	1.7831		0.0960	1.9271	0.0088
<i>Mical2</i>	similar to flavoprotein oxidoreductase MICAL2	2.1045		0.1440	1.9232	0.0478
<i>Kcnc1</i>	potassium voltage gated channel, Shaw-related subfamily, member 1	0.8564		0.6720	1.9213	0.0381
<i>Loc688613</i>	hypothetical protein	2.1096		0.0730	1.9161	0.0449
<i>Loc502684</i>	hypothetical protein LOC502684	1.3113		0.1220	1.9129	0.0133
<i>Dcaf17</i>	hypothetical protein	1.6880		0.1640	1.9100	0.0133
<i>Spag6l</i>	sperm associated antigen 6	1.2376		0.1220	1.9053	0.0100

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Tsc22d1</i>	similar to transforming growth factor beta 1 induced transcript 4 isoform 1 isoform 1	2.2023		0.0669	1.8999	0.0282
<i>Cds1</i>	CDP-diacylglycerol synthase 1	1.6762		0.2190	1.8970	0.0386
<i>Iig9</i>	IIIG9 protein	1.6923		0.0625	1.8965	0.0092
<i>Loc685050</i>	hypothetical protein	1.8779		0.1660	1.8889	0.0382
<i>Kcnc2</i>	Shaw-related voltage-gated potassium channel protein 2 isoform b	1.4761		0.0672	1.8876	0.0264
<i>Ubap1</i>	ubiquitin-associated protein 1	1.6824		0.0707	1.8829	0.0177
<i>Loc682914</i>	similar to Zinc finger protein 326 (Zinc finger protein-associated with nuclear matrix of 75 kDa)	1.2018		0.4410	1.8709	0.0218
<i>Nudt15</i>	similar to MTH2 protein	1.4853		0.1340	1.8651	0.0200
<i>Ptgfrn</i>	prostaglandin F2 receptor negative regulator	1.8180		0.0522	1.8644	0.0250
<i>Pcdhga7</i>	protocadherin gamma subfamily A, 7	2.0480		0.1790	1.8600	0.0377
<i>Rgd1307394</i>	similar to CG18549-PA	1.7829		0.0633	1.8596	0.0356
<i>Rgd1307615</i>	similar to F08G12.1	1.9683		0.3530	1.8589	0.0199
<i>Dach2</i>	similar to dachshund 2	1.1822		0.2510	1.8538	0.0455
<i>Arhgap26</i>	similar to Rho-GTPase-activating protein 26 (Oligophrenin-1-like protein) (GTPase regulator associated with focal adhesion kinase)	1.3400		0.2060	1.8513	0.0188
<i>Loc679869</i>	similar to transcription factor 7-like 2, T-cell specific, HMG-box isoform 3	2.0632		0.0989	1.8462	0.0299
<i>Lmod2</i>	similar to leiomodulin 2 (cardiac)	1.5026		0.0742	1.8439	0.0262
<i>Loc680096</i>	similar to ribosomal protein L31	1.5729		0.1650	1.8422	0.0366
<i>Loc685010</i>	similar to queuine tRNA-ribosyltransferase domain containing 1	1.5521		0.0693	1.8370	0.0189

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1560978</i>	hypothetical protein	1.6405		0.0663	1.8363	0.0351
<i>Loc685707</i>	similar to neuron navigator 1	1.6203		0.1080	1.8328	0.0140
<i>Dusp3</i>	similar to Dual specificity protein phosphatase 3 (T-DSP11)	1.9584		0.3450	1.8327	0.0378
<i>Dtx2</i>	similar to deltex 2	1.9668		0.0963	1.8246	0.0369
<i>Rgd1309285</i>	similar to TPR domain, ankyrin-repeat and coiled-coil-containing	1.3773		0.1040	1.8197	0.0142
<i>Rab6b</i>	similar to RAB6B, member RAS oncogene family	1.0515		0.2590	1.8183	0.0410
<i>Mrps2</i>	similar to Mitochondrial 28S ribosomal protein S2 (S2mt) (MRP-S2)	1.6830		0.0573	1.8149	0.0349
<i>Erlin2</i>	similar to SPFH domain family, member 2	1.3511		0.2890	1.8148	0.0243
<i>Slc7a8</i>	solute carrier family 7 (cationic amino acid transporter, y+ system), member 8	1.3425		0.0521	1.8124	0.0289
<i>Sgip1</i>	similar to SH3-domain GRB2-like (endophilin) interacting protein 1	1.4466		0.0901	1.8121	0.0211
<i>Loc691223</i>	hypothetical protein	1.1638		0.2800	1.8089	0.0177
<i>Wdr63</i>	similar to testis development protein NYD-SP29	1.3859		0.3300	1.8079	0.0422
<i>Foxn3</i>	similar to checkpoint suppressor 1 isoform 1	1.1278		0.3060	1.8062	0.0121
<i>Rgd1562533</i>	hypothetical protein	1.7145		0.0669	1.8058	0.0289
<i>Map1b</i>	similar to Microtubule-associated protein 1B (MAP 1B) (Neuraxin)	1.0702		0.2030	1.7993	0.0469
<i>Rasgef1c</i>	similar to RasGEF domain family, member 1C	1.1012		0.2020	1.7955	0.0269
<i>Dpysl3</i>	dihydropyrimidinase-like 3	1.2856		0.0825	1.7940	0.0094
<i>Fnbp1</i>	rapostlin	1.7864		0.0625	1.7910	0.0233

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1310335</i>	similar to p90 autoantigen	1.9560		0.0704	1.7908	0.0444
<i>Tacc1</i>	transforming, acidic coiled-coil containing protein 1	1.1721		0.3050	1.7767	0.0302
<i>Ttc4</i>	tetratricopeptide repeat domain 4	2.5067		0.0763	1.7670	0.0374
<i>Thrc6b</i>	similar to trinucleotide repeat containing 6b isoform 1	2.3745		0.1170	1.7642	0.0482
<i>Rgd1560978</i>	hypothetical protein	1.4645		0.0646	1.7611	0.0336
<i>Slc24a2</i>	solute carrier family 24, member 2	1.0361		0.4620	1.7582	0.0471
<i>Ubash3b</i>	similar to RIKEN cDNA 2810457I06	1.3859		0.0284	1.7567	0.0427
<i>Rgd1564149</i>	hypothetical protein LOC499419	1.3741		0.1290	1.7549	0.0036
<i>Pprc1</i>	similar to PGC-1 related co-activator	2.2768		0.0816	1.7523	0.0495
<i>Rabgef1</i>	similar to Rab5 GDP/GTP exchange factor (Rabex-5)	1.7839		0.0545	1.7470	0.0371
<i>Hcca2</i>	similar to ovary-specific MOB-like protein	1.5468		0.1520	1.7435	0.0454
<i>Rel2</i>	hypothetical protein LOC361313	1.7055		0.0860	1.7433	0.0418
<i>Mobk11a</i>	similar to Mps one binder kinase activator-like 1A (Mob1 homolog 1A)	1.5975		0.0961	1.7396	0.0411
<i>P4hb</i>	prolyl 4-hydroxylase, beta polypeptide	1.7603		0.1260	1.7393	0.0352
<i>Loc362710</i>	similar to EEED8.6 isoform 1	1.7952		0.0520	1.7327	0.0379
<i>Rab22a</i>	similar to Ras-related protein Rab-22A (Rab-22) (Rab-14) isoform 1	1.3501		0.0780	1.7326	0.0275
<i>Rfx5</i>	similar to DNA-binding protein RFX5 (Regulatory factor X subunit 5)	1.3559		0.0712	1.7252	0.0084
<i>Rgd1561393</i>	similar to CG15133-PA	0.9782		0.5750	1.7160	0.0484
<i>Mif1</i>	similar to Myeloid leukemia factor 1 (Myelodysplasia-myeloid leukemia factor 1) (Hematopoietic lineage switch 7)	0.7646		0.6340	1.7150	0.0307
<i>Scd</i>	stearoyl-Coenzyme A desaturase 2	2.8429		0.0630	1.7107	0.0414

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gpr107</i>	similar to Protein GPR107 precursor	1.4225		0.0904	1.7048	0.0283
<i>Rgd1562229</i>	hypothetical protein	1.5167		0.0914	1.7036	0.0321
<i>Cdr2</i>	cerebellar degeneration-related 2	1.2632		0.4520	1.7033	0.0420
<i>Fstl4</i>	similar to follistatin-like 4 isoform 1	1.4831		0.0410	1.7030	0.0142
<i>Rgd1311910</i>	similar to CG15916-PA	1.5571		0.0660	1.7021	0.0225
<i>Casq2</i>	calsequestrin 2	1.2689		0.1730	1.7017	0.0201
<i>Lrrc36</i>	similar to leucine rich repeat containing 36	1.3077		0.4570	1.6963	0.0458
<i>Rc3h2</i>	similar to Membrane-associated nucleic acid binding protein isoform 1	1.4823		0.0886	1.6963	0.0303
<i>Dnali1</i>	dynein, axonemal, light intermediate polypeptide 1	1.4420		0.1710	1.6951	0.0328
<i>Rufy1</i>	similar to RUN and FYVE domain containing 1	1.8080		0.0681	1.6941	0.0480
<i>Map4k4</i>	similar to mitogen-activated protein kinase kinase kinase 4 isoform 1 isoform 1	1.3566		0.1300	1.6886	0.0417
<i>Galnt1</i>	similar to Putative polypeptide N-acetylgalactosaminyltransferase-like protein 1 (Protein-UDP acetylgalactosaminyltransferase-like protein 1) (UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase-like protein 1) (Polypeptide GalNAc transferase-...	2.3072		0.1100	1.6869	0.0174
<i>Bcas1</i>	breast carcinoma amplified sequence 1	1.4115		0.3380	1.6737	0.0345
<i>Akr1b7</i>	aldo-keto reductase family 1, member B7	1.5490		0.0724	1.6730	0.0382
<i>Ccnt2</i>	similar to cyclin T2	1.7965		0.0602	1.6717	0.0240
<i>Rtf1</i>	similar to Paf1/RNA polymerase II complex component	1.9511		0.0828	1.6686	0.0237
<i>Ccnd2</i>	cyclin D2	1.0917		0.5450	1.6603	0.0161

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Hus1</i>	similar to Hus1 homolog	1.3313		0.0666	1.6565	0.0262
<i>Mier1</i>	similar to mesoderm induction early response 1	1.3603		0.1680	1.6510	0.0432
<i>Helz</i>	similar to helicase with zinc finger domain isoform 2	1.6987		0.1620	1.6472	0.0398
<i>Akap2</i>	A kinase (PRKA) anchor protein 2	0.8230		0.6470	1.6463	0.0191
<i>Nfyc</i>	nuclear transcription factor-Y gamma	1.4696		0.1120	1.6362	0.0421
<i>Kank1</i>	similar to ankyrin repeat domain 15	1.9821		0.1260	1.6317	0.0440
<i>Rrp1</i>	novel nuclear protein 1	1.6135		0.1170	1.6285	0.0413
<i>Mrps27</i>	similar to mitochondrial ribosomal protein S27	1.7434		0.0616	1.6269	0.0311
<i>Hdac4</i>	similar to histone deacetylase 4	1.6587		0.4220	1.6255	0.0386
<i>Stau2</i>	staufen, RNA binding protein, homolog 2 isoform LS (B)	1.4026		0.0637	1.6250	0.0323
<i>Cntnap5b</i>	hypothetical protein LOC301650	2.3480		0.0686	1.6206	0.0376
<i>Loc689275</i>	hypothetical protein	1.1425		0.3250	1.6135	0.0261
<i>Mr1</i>	similar to histocompatibility-2 complex class 1-like	1.3651		0.1460	1.6090	0.0472
<i>Zbtb24</i>	similar to zinc finger protein 450	1.4215		0.2220	1.5975	0.0442
<i>Mcm5</i>	similar to DNA replication licensing factor MCM5 (CDC46 homolog) (P1-CDC46)	1.6785		0.2280	1.5971	0.0273
<i>Lrrc8a</i>	leucine-rich repeat-containing 8	1.1851		0.5540	1.5801	0.0420
<i>Tmem116</i>	hypothetical protein isoform 2	1.6247		0.0727	1.5781	0.0186
<i>Loc689996</i>	similar to translocase of outer mitochondrial membrane 20 homolog	1.4489		0.0579	1.5774	0.0397
<i>G6pd</i>	glucose-6-phosphate dehydrogenase	1.4338		0.1240	1.5731	0.0318
<i>Dgcr14</i>	DiGeorge syndrome critical region protein 14	1.8933		0.0584	1.5696	0.0473

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Bbox1</i>	gamma-butyrobetaine dioxygenase	1.2637		0.1390	1.5643	0.0301
<i>Gjc3</i>	similar to Gap junction epsilon-1 protein (Connexin-29) (Cx29)	1.0803		0.3750	1.5591	0.0467
<i>Spata1</i>	spermatogenesis associated 1	1.3282		0.0899	1.5567	0.0271
<i>Agbl4</i>	similar to CG31019-PA	1.4841		0.0462	1.5523	0.0303
<i>Nsf</i>	N-ethylmaleimide sensitive fusion protein	1.6231		0.1020	1.5498	0.0264
<i>Stk24</i>	similar to serine/threonine protein kinase 24	1.6318		0.0534	1.5427	0.0496
<i>Stoml3</i>	similar to stomatin (Epb7.2)-like 3	1.0491		0.9840	1.5421	0.0456
<i>Lztr1</i>	similar to leucine-zipper-like transcription regulator, 1	1.5866		0.0510	1.5373	0.0465
<i>Trio</i>	similar to triple functional domain (PTPRF interacting)	1.3693		0.2540	1.5350	0.0109
<i>Rgd1562218</i>	hypothetical protein LOC292100	1.5149		0.0730	1.5237	0.0396
<i>Nfatc3</i>	similar to cytoplasmic nuclear factor of activated T-cells 3	1.1964		0.2480	1.5192	0.0393
<i>Rnft2</i>	similar to CG13605-PA	1.7343		0.0571	1.5187	0.0350
<i>Khdrbs2</i>	KH domain-containing, RNA-binding, signal transduction-associated protein 2	1.5808		0.0570	1.5144	0.0421
<i>Actr3b</i>	similar to ARP3 actin-related protein 3 homolog B	1.3928		0.1100	1.5130	0.0326
<i>Caln1</i>	calneuron 1	1.5140		0.2190	1.5124	0.0407
<i>Rrbp1</i>	similar to ribosome binding protein 1 isoform 1	1.6934		0.1010	1.5071	0.0433
<i>Trpv2</i>	vanilloid receptor-like protein 1	1.7730		0.0930	1.5049	0.0396
<i>Itih3</i>	inter-alpha trypsin inhibitor, heavy chain 3	1.4426		0.0586	1.5030	0.0261
<i>Cog8</i>	similar to component of oligomeric golgi complex 8	1.5665		0.0529	1.5024	0.0487

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tmod2</i>	tropomodulin 2	1.4559		0.0883	1.5001	0.0355
<i>A4galt</i>	alpha 1,4-galactosyltransferase	0.6151		0.0877	0.6665	0.0274
<i>Mgc93861</i>	hypothetical protein LOC682010	0.7905		0.1370	0.6662	0.0478
<i>Troap</i>	similar to trophinin associated protein (tastin)	0.7572		0.1040	0.6661	0.0408
<i>Spag4</i>	sperm associated antigen 4	0.6907		0.0500	0.6660	0.0295
<i>Gnas</i>	similar to XLalphas protein	0.6064		0.0557	0.6660	0.0406
<i>Loc681201</i>	hypothetical protein	0.6145		0.0744	0.6659	0.0471
<i>Fam124b</i>	hypothetical protein	0.8519		0.5220	0.6647	0.0304
<i>Mmp20</i>	similar to Matrix metalloproteinase-20 precursor (MMP-20) (Enamel metalloproteinase) (Enamelysin)	0.6859		0.1090	0.6647	0.0334
<i>Chrn4</i>	cholinergic receptor, nicotinic, beta polypeptide 4	0.5892		0.0617	0.6644	0.0262
<i>Sox17</i>	similar to Transcription factor SOX-17	0.6173		0.0669	0.6643	0.0460
<i>Slc6a18</i>	solute carrier family 6 (neurotransmitter transporter), member 18	0.7356		0.1240	0.6638	0.0387
<i>Muc13</i>	putative cell surface antigen	0.8078		0.0881	0.6635	0.0107
<i>Slc39a4</i>	solute carrier family 39 (zinc transporter), member 4	0.7173		0.1730	0.6634	0.0305
<i>Tph2</i>	tryptophan hydroxylase 2	0.7169		0.0774	0.6630	0.0161
<i>Loc684773</i>	similar to histone 2a	0.5014		0.0509	0.6626	0.0404
<i>Rccd1</i>	similar to CG6678-PA	0.9191		0.3790	0.6621	0.0439
<i>Loc680480</i>	similar to myosin heavy chain Myr 8	0.6688		0.0239	0.6603	0.0316
<i>Irf6</i>	similar to Interferon regulatory factor 6 (IRF-6)	0.7229		0.0860	0.6600	0.0241
<i>Loc691452</i>	hypothetical protein	0.7523		0.0539	0.6589	0.0165

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc296247</i>	similar to Transcriptional enhancer factor TEF-4 (TEA domain family member 2) (TEAD-2) (Embryonic TEA domain-containing factor) (ETF) (EETF-1)	0.7390		0.1450	0.6580	0.0334
<i>Il5</i>	interleukin 5	0.9061		0.3220	0.6574	0.0174
<i>Rt1-M4</i>	similar to histocompatibility 2, Q region locus 10	0.6278		0.0822	0.6573	0.0237
<i>Loc503224</i>	similar to phospholipid scramblase 1	0.6581		0.0645	0.6572	0.0303
<i>Fgf16</i>	fibroblast growth factor 16	0.6728		0.0872	0.6567	0.0364
<i>Zfp352</i>	similar to zinc finger protein 352	0.7071		0.0687	0.6564	0.0498
<i>Rgd1561490</i>	similar to AP-1 complex subunit mu-2 (Adaptor-related protein complex 1 mu-2 subunit) (Mu-adaptin 2) (Adaptor protein complex AP-1 mu-2 subunit) (Golgi adaptor HA1/AP1 adaptin mu-2 subunit) (Clathrin assembly protein assembly protein complex 1 medi... iso	0.7352		0.0923	0.6561	0.0309
<i>Loc652956</i>	p55 protein	0.7224		0.1050	0.6560	0.0135
<i>Loc691276</i>	hypothetical protein	0.7937		0.1630	0.6559	0.0194
<i>Loc689963</i>	hypothetical protein	0.7864		0.2910	0.6556	0.0325
<i>Rgd1561662</i>	similar to CG11835-PA	0.6868		0.1170	0.6556	0.0430
<i>Hoxc13</i>	similar to Homeobox protein Hox-C13	0.8975		0.4760	0.6553	0.0310
<i>Lgals12</i>	similar to Galectin-12	0.6516		0.0941	0.6547	0.0462
<i>Il20rb</i>	similar to fibronectin type III domain containing 6	0.7401		0.2120	0.6546	0.0465
<i>Hoxc6</i>	similar to Homeobox protein Hox-C9 (Hox-3.2) isoform 1	0.7235		0.4900	0.6538	0.0414
<i>Loc690035</i>	similar to Protein KIAA0586	0.7577		0.3090	0.6537	0.0365

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Prr18</i>	similar to RIKEN cDNA 9630019K15 gene	0.8638		0.2230	0.6534	0.0384
<i>Loc680810</i>	hypothetical protein	0.7918		0.1610	0.6530	0.0228
<i>Il2rb</i>	interleukin 2 receptor, beta chain	0.7101		0.0841	0.6521	0.0409
<i>Rgd1359349</i>	hypothetical protein LOC361744	1.0291		0.4260	0.6519	0.0277
<i>Rgd1560860</i>	similar to ankyrin repeat domain 26	0.7168		0.1400	0.6510	0.0412
<i>Loc686911</i>	similar to Exocyst complex component 1 (Exocyst complex component Sec3)	0.6019		0.1770	0.6509	0.0367
<i>Loc687540</i>	similar to dynein, axonemal, heavy chain 8	1.0807		0.8990	0.6508	0.0390
<i>Rgd1562018</i>	hypothetical protein	0.7054		0.0692	0.6501	0.0383
<i>Obox6</i>	similar to oocyte specific homeobox 6	0.5254		0.1580	0.6498	0.0498
<i>Loc686969</i>	hypothetical protein	0.6392		0.0858	0.6497	0.0461
<i>Wap</i>	whey acidic protein	0.6925		0.0456	0.6496	0.0395
<i>Dand5</i>	similar to DAN domain family, member 5	0.8554		0.2700	0.6496	0.0215
<i>Vsig2</i>	similar to V-set and immunoglobulin domain-containing protein 2 precursor (CT- like protein) (Cortical thymocyte-like protein)	0.6324		0.0650	0.6493	0.0363
<i>Klhdc7b</i>	similar to Kelch repeat and BTB domain- containing protein 11	0.6815		0.0355	0.6491	0.0308
<i>F13b</i>	similar to coagulation factor XIII, beta subunit	0.7211		0.3330	0.6485	0.0115
<i>Cldn3</i>	claudin 3	0.6411		0.1230	0.6479	0.0397
<i>Poteg</i>	hypothetical protein LOC364620	0.9972		0.7310	0.6478	0.0152
<i>Nrg4</i>	similar to neuregulin 4	0.6665		0.0732	0.6474	0.0330
<i>Loc680348</i>	similar to uroplakin IIIb	0.8259		0.2730	0.6471	0.0164
<i>Loc679513</i>	hypothetical protein	0.7322		0.1230	0.6465	0.0252
<i>Loc690014</i>	hypothetical protein	0.6974		0.0266	0.6453	0.0067

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Myo7b</i>	similar to myosin VIIIb	0.7993		0.2850	0.6453	0.0384
<i>Sfrs10</i>	splicing factor, arginine/serine-rich 10	0.8524		0.3960	0.6453	0.0099
<i>Foxred2</i>	hypothetical protein	0.6945		0.0860	0.6447	0.0408
<i>Loc681218</i>	hypothetical protein	0.6875		0.0334	0.6444	0.0153
<i>Loc691479</i>	hypothetical protein	0.6818		0.0652	0.6443	0.0157
<i>Loc685316</i>	hypothetical protein	0.6933		0.0315	0.6437	0.0452
<i>Loc680936</i>	hypothetical protein	0.8422		0.2010	0.6431	0.0231
<i>Bpil2</i>	similar to bactericidal/permeability-increasing protein-like 2	0.6045		0.0755	0.6416	0.0431
<i>Adamts12</i>	similar to ADAMTS-like 2	0.7364		0.0841	0.6414	0.0466
<i>Loc684582</i>	hypothetical protein	0.7646		0.0615	0.6413	0.0054
<i>Avp</i>	arginine vasopressin	0.7499		0.2040	0.6412	0.0424
<i>Loc686812</i>	similar to reduced pigmentation protein	0.8638		0.1980	0.6408	0.0331
<i>Loc680997</i>	similar to Kinesin-like protein KIF1C (Kinesin-like protein KIF1D)	0.7833		0.0631	0.6408	0.0411
<i>Loc680826</i>	hypothetical protein	0.7260		0.0542	0.6403	0.0191
<i>Pcsk9</i>	proprotein convertase subtilisin/kexin type 9	0.6233		0.0624	0.6398	0.0270
<i>Cyp2c23</i>	cytochrome P450, family 2, subfamily c, polypeptide 23	0.6933		0.0534	0.6391	0.0201
<i>Cpa4</i>	similar to carboxypeptidase A4	0.7606		0.1790	0.6390	0.0473
<i>Slc23a3</i>	similar to solute carrier family 23 (nucleobase transporters), member 3	0.7152		0.0921	0.6390	0.0259
<i>Loc681340</i>	hypothetical protein	0.7199		0.0519	0.6387	0.0049
<i>Sox15</i>	similar to SOX-15 protein	0.5664		0.0513	0.6378	0.0191
<i>Loc301444</i>	similar to Acyl-CoA-binding protein (ACBP) (Diazepam-binding inhibitor) (DBI) (Endozepine) (EP)	0.6391		0.0947	0.6374	0.0384

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Bik</i>	Bcl2-interacting killer-like	0.8809		0.1810	0.0241
<i>Loc367975</i>	hypothetical protein LOC367975	0.7356		0.1210	0.0239
<i>Loc686362</i>	similar to LY6/PLAUR domain containing 2	0.6574		0.0513	0.0228
<i>Loc501274</i>	hypothetical protein	0.6542		0.1060	0.0427
<i>Scn11a</i>	sodium channel, voltage-gated, type11, alpha polypeptide	0.6612		0.0561	0.0372
<i>Rgd1563703</i>	similar to mitochondrial hepatocellular carcinoma-downregulated carrier protein	0.6522		0.0509	0.0246
<i>Hapln3</i>	hyaluronan and proteoglycan link protein 3	0.7268		0.1050	0.0225
<i>Ankrd61</i>	hypothetical protein LOC689907	0.6131		0.0684	0.0419
<i>Crip</i>	similar to Cysteine-rich protein 1 (Cysteine-rich intestinal protein) (CRIP)	0.5099		0.0584	0.0419
<i>Rgd1559482</i>	similar to Cd300D antigen	0.5509		0.0904	0.0318
<i>Nkx1-1</i>	similar to NK1 transcription factor related 2-like,b	0.7458		0.1040	0.0165
<i>Dmkn</i>	similar to dermokine beta	0.6604		0.0733	0.0204
<i>Loc501274</i>	hypothetical protein	0.6311		0.0889	0.0233
<i>Loc687508</i>	similar to Cytochrome c oxidase polypeptide VIIa-heart, mitochondrial precursor (Cytochrome c oxidase subunit VIIa-H) (COX VIIa-M) isoform 2	0.5899		0.0608	0.0298
<i>Loc684924</i>	similar to zinc finger protein 449	0.7390		0.1430	0.0316
<i>Plin</i>	perilipin	0.7286		0.2160	0.0453
<i>Loc684694</i>	hypothetical protein	0.7720		0.1130	0.0102
<i>Loc680734</i>	similar to Ankyrin CG1651-PC, isoform C	0.7026		0.1400	0.0291
<i>Lrrc37a</i>	similar to CG7896-PA	0.6006		0.0759	0.0088
<i>Rgd1564472</i>	similar to transcription elongation factor B polypeptide 3 binding protein 1 isoform 1	0.5234		0.0937	0.0446

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Fam124a</i>	hypothetical protein	0.7013		0.1880	0.0429
<i>Loc691418</i>	hypothetical protein	0.7865		0.1890	0.0174
<i>Loc691671</i>	hypothetical protein	0.6389		0.1590	0.0385
<i>Loc689611</i>	hypothetical protein	0.7272		0.1260	0.0315
<i>Irx1</i>	similar to Iroquois-class homeodomain protein IRX-1 (Iroquois homeobox protein 1) (Homeodomain protein IRXA1)	0.6623		0.0508	0.0337
<i>Cd5</i>	CD5 antigen	0.7344		0.1870	0.0446
<i>Loc690011</i>	hypothetical protein	0.5506		0.0556	0.0367
<i>Ephx3</i>	similar to abhydrolase domain containing 9	0.6508		0.0502	0.0496
<i>Tbx5</i>	T-box 5	0.6518		0.0593	0.0328
<i>Tmprss11f</i>	similar to transmembrane protease, serine 11f	0.5673		0.0636	0.0361
<i>Tcl1a</i>	similar to T-cell leukemia/lymphoma protein 1A (P14 TCL1 protein) (TCL1 oncogene) (TCL-1 protein)	0.6110		0.0535	0.0380
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.6223		0.1480	0.0208
<i>Chst11</i>	similar to Carbohydrate sulfotransferase 11 (Chondroitin 4-O-sulfotransferase 1) (Chondroitin 4-sulfotransferase 1) (C4ST) (C4ST-1) (C4S-1)	0.6930		0.1220	0.0306
<i>Aldh1a3</i>	aldehyde dehydrogenase family 1, subfamily A3	0.9418		0.6510	0.0375
<i>Rgd1306000</i>	similar to CG8043-PA	0.5018		0.0663	0.0266
<i>Rgd1565871</i>	similar to airway trypsin-like 5	0.7006		0.0646	0.0241
<i>Unc13d</i>	Munc13-4 protein	0.6258		0.0692	0.0452

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc678798</i>	similar to deleted in malignant brain tumors 1 isoform a precursor	0.6319		0.0566	0.6189	0.0424
<i>Rab19</i>	hypothetical protein LOC500088	0.6908		0.1190	0.6187	0.0392
<i>Rgd1565953</i>	similar to ATP-binding cassette, sub-family C (CFTR/MRP), member 4	0.6513		0.1960	0.6187	0.0268
<i>Phlpb</i>	phospholipase B	0.8507		0.4460	0.6184	0.0457
#N/A	hypothetical protein	0.6660		0.1550	0.6184	0.0358
<i>Clec3a</i>	similar to C-type lectin domain family 3, member a	0.6308		0.0639	0.6180	0.0375
<i>Loc301959</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5799		0.2000	0.6175	0.0338
<i>Loc691608</i>	hypothetical protein	0.7308		0.0754	0.6171	0.0415
<i>Rgd1560398</i>	hypothetical protein	0.8830		0.1460	0.6160	0.0109
<i>Loc684844</i>	similar to Epidermal Langerhans cell protein LCP1	0.5353		0.0819	0.6152	0.0395
<i>Hbb</i>	hemoglobin beta chain complex	0.7540		0.2790	0.6152	0.0348
<i>Rgd1311055</i>	similar to DNA replication complex GINS protein PSF2	0.6695		0.0812	0.6147	0.0309
<i>Tnfaip6</i>	similar to Tumor necrosis factor-inducible protein TSG-6 precursor (TNF-stimulated gene 6 protein)	0.6342		0.1120	0.6147	0.0210
<i>Ccr7</i>	chemokine (C-C motif) receptor 7	0.6615		0.0855	0.6140	0.0169
<i>Zp4</i>	zona pellucida glycoprotein 4	0.7325		0.0551	0.6139	0.0109
<i>Mxra7</i>	similar to Transmembrane anchor protein 1	0.5896		0.0616	0.6136	0.0279
<i>Marveld1</i>	similar to MARVEL (membrane-associating) domain containing 1	0.7392		0.2180	0.6133	0.0478
<i>Oas3</i>	2'-5'-oligoadenylate synthetase 3	0.7948		0.3490	0.6131	0.0160

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Nkx2-5</i>	NK2 transcription factor related, locus 5	1.0344		0.4620	0.0405
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.6196		0.1300	0.0326
<i>Spata21</i>	similar to spergen-3	0.8390		0.4540	0.0251
<i>Cxcl6</i>	CXC chemokine LIX	0.7589		0.1430	0.0176
<i>Cldn20</i>	similar to claudin 20	0.6083		0.1090	0.0455
<i>Rag2</i>	similar to V(D)J recombination-activating protein 2 (RAG-2)	0.6112		0.0735	0.0214
<i>Spaca3</i>	similar to sperm acrosome associated 3	0.7604		0.1240	0.0161
<i>Loc684773</i>	similar to histone 2a	0.7586		0.2830	0.0223
<i>Myocd</i>	transcription factor myocardin	0.6143		0.0813	0.0171
<i>Loc691386</i>	similar to 60S ribosomal protein L27a	0.6445		0.0763	0.0417
<i>Loc680810</i>	hypothetical protein	0.7178		0.0815	0.0334
<i>Loc683553</i>	hypothetical protein	0.6195		0.0502	0.0282
<i>Hmx3</i>	similar to H6 homeo box 3	0.7480		0.0761	0.0142
<i>Art5</i>	ADP-ribosyltransferase 5	0.9096		0.2700	0.0158
<i>Sit1</i>	hypothetical protein LOC500449	0.8558		0.3440	0.0374
<i>Kcnmb3</i>	similar to calcium-activated potassium channel beta 3 subunit isoform a	0.7232		0.0851	0.0423
<i>Loc691430</i>	hypothetical protein	0.7170		0.2220	0.0221
<i>Loc689323</i>	hypothetical protein	0.6844		0.0396	0.0140
<i>Rgd1559810</i>	similar to CD46 antigen, complement regulatory protein isoform 4 precursor	0.5953		0.1430	0.0264
<i>Loc681414</i>	hypothetical protein	0.8574		0.3570	0.0241
<i>Cilp</i>	similar to Cartilage intermediate layer protein 1 precursor (CILP-1)	0.8551		0.3180	0.0302
<i>Loc691291</i>	similar to peptidoglycan recognition protein 2	0.5468		0.1420	0.0426

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Pitx3</i>	paired-like homeodomain transcription factor 3	0.5499	0.0779	0.6037	0.0177
<i>Lyg2</i>	similar to lysozyme-like	0.6931	0.0996	0.6035	0.0380
<i>Noxo1</i>	similar to NADPH oxidase organizer 1 isoform b	0.6081	0.0573	0.6034	0.0324
<i>Rgd1565787</i>	hypothetical protein	0.7132	0.0801	0.6028	0.0331
<i>Tal1</i>	similar to T-cell acute lymphocytic leukemia-1 protein homolog (TAL-1 protein) (Stem cell protein)	0.7063	0.0673	0.6026	0.0190
<i>Loc683988</i>	similar to DNA polymerase epsilon subunit 4	0.5659	0.0942	0.6022	0.0411
<i>Loc684767</i>	hypothetical protein	0.7766	0.2460	0.6018	0.0132
<i>Tlr10</i>	similar to toll-like receptor 10 precursor	0.7288	0.2010	0.6013	0.0247
<i>Loc685480</i>	hypothetical protein	0.6918	0.1090	0.6013	0.0193
<i>Loc680045</i>	hypothetical protein	0.6346	0.0518	0.6011	0.0199
<i>Unc5cl</i>	similar to unc-5 homolog C (C. elegans)-like	0.7015	0.1300	0.6005	0.0026
<i>Cdx4</i>	similar to caudal type homeo box 4	0.6726	0.0260	0.6003	0.0066
<i>Loc681206</i>	hypothetical protein	0.5508	0.0692	0.5999	0.0168
<i>Smyd1</i>	similar to SET and MYND domain-containing protein 1 (Zinc-finger protein BOP) (m-BOP) (CD8b-opposite)	0.7644	0.2270	0.5984	0.0373
<i>Prps111</i>	similar to phosphoribosyl pyrophosphate synthetase 1-like 1	0.6215	0.0931	0.5982	0.0451
<i>Itk</i>	similar to IL2-inducible T-cell kinase isoform 1	0.6808	0.0630	0.5981	0.0406
<i>Prdm5</i>	similar to PR domain containing 5	0.7535	0.2640	0.5970	0.0388
<i>Rgd1566210</i>	similar to testis expressed gene 264	0.7566	0.3660	0.5969	0.0448

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Abcc2</i>	ATP-binding cassette, sub-family C (CFTR/MRP), member 2	0.6890		0.1070	0.5958	0.0145
<i>Kcnk6</i>	potassium channel, subfamily K, member 6	0.6756		0.0647	0.5950	0.0165
<i>Tex19.1</i>	hypothetical protein LOC498033	0.4967		0.0851	0.5942	0.0313
<i>Loc690402</i>	similar to Short palate, lung and nasal epithelium carcinoma-associated protein 3 homolog precursor	0.6004		0.0630	0.5939	0.0420
<i>Sh2d7</i>	similar to SH2 domain protein 2A (T cell-specific adapter protein) (TSAd) (VEGF receptor-associated protein) (SH2 domain containing adapter protein)	0.6251		0.0706	0.5938	0.0267
<i>Igfn1</i>	similar to eEF1A2 binding protein	0.7007		0.0483	0.5936	0.0422
<i>Fam64a</i>	hypothetical protein	0.6933		0.0988	0.5935	0.0104
<i>N6amt1</i>	similar to N6-DNA methyltransferase A	0.6836		0.0687	0.5934	0.0121
<i>Loc687351</i>	hypothetical protein	0.7726		0.2670	0.5932	0.0213
<i>Adh1</i>	alcohol dehydrogenase 1	0.7364		0.1920	0.5931	0.0220
<i>Dysfip1</i>	similar to dysferlin-interacting protein 1	0.6603		0.0821	0.5924	0.0317
<i>Hrc</i>	histidine rich calcium binding protein	0.6007		0.0517	0.5913	0.0189
<i>Loc678712</i>	hypothetical protein	0.6311		0.0566	0.5899	0.0257
<i>Tmem40</i>	similar to transmembrane protein 40	0.5935		0.0951	0.5898	0.0295
<i>Loc498063</i>	hypothetical protein LOC498063	0.7275		0.0532	0.5896	0.0059
<i>Slc5a2</i>	solute carrier family 5 (sodium/glucose cotransporter), member 2	0.5406		0.1160	0.5895	0.0357
<i>Iqcf5</i>	similar to IQ motif containing F1	0.6376		0.2960	0.5893	0.0286
<i>Loc679158</i>	similar to SRY (sex determining region Y)-box 3	0.6122		0.0978	0.5892	0.0084
<i>Unc119b</i>	similar to Unc119c	0.7618		0.1980	0.5889	0.0458

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562874</i>	similar to T20F5.6	0.8108		0.2600	0.5884	0.0212
<i>Bms1</i>	similar to BMS1-like, ribosome assembly protein	0.4943		0.0585	0.5883	0.0336
<i>Rgd1563703</i>	similar to chromosome 14 open reading frame 68	0.6350		0.1190	0.5865	0.0259
<i>Rgd1565367</i>	similar to Solute carrier family 23 member 2 (Sodium-dependent vitamin C transporter 2) (mSVCT2) (Na(+)/L-ascorbic acid transporter 2) (Yolk sac permease-like molecule 2)	0.9196		0.4380	0.5860	0.0477
<i>Loc688446</i>	hypothetical protein	0.5587		0.0781	0.5851	0.0369
<i>Loc683923</i>	hypothetical protein	0.7941		0.2470	0.5850	0.0415
<i>Mcm10</i>	similar to minichromosome maintenance protein 10	0.7322		0.0713	0.5850	0.0058
<i>Loc686628</i>	similar to 40S ribosomal protein S2	0.5561		0.1160	0.5844	0.0486
<i>Loc691573</i>	hypothetical protein	0.7106		0.1080	0.5842	0.0145
<i>Vegfc</i>	vascular endothelial growth factor C	0.5692		0.1310	0.5839	0.0450
<i>Gh1</i>	growth hormone 1	0.5965		0.0917	0.5827	0.0341
<i>Chmp2b</i>	similar to chromatin modifying protein 2B	0.6684		0.0910	0.5826	0.0227
<i>Hoxb8</i>	similar to Homeobox protein Hox-B9 (Hox-2.5)	0.6739		0.1450	0.5814	0.0134
<i>Rgd1563955</i>	similar to transmembrane protease, serine 9	0.6738		0.0415	0.5806	0.0302
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.6376		0.0514	0.5804	0.0084
<i>Loc681351</i>	apolipoprotein L, 3	0.7695		0.2580	0.5803	0.0161
<i>Loc680783</i>	hypothetical protein	0.5114		0.0911	0.5803	0.0484

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562846</i>	similar to Docking protein 5 (Downstream of tyrosine kinase 5) (Protein dok-5)	0.7132		0.1250	0.5801	0.0370
<i>Lrrc43</i>	hypothetical protein	0.5464		0.0541	0.5799	0.0345
<i>Rgd1564941</i>	similar to Ankyrin repeat domain protein 7 (Testis-specific protein TSA806)	0.4664		0.1550	0.5787	0.0498
<i>Rgd1563334</i>	similar to arylacetamide deacetylase	0.5727		0.0727	0.5784	0.0477
<i>Dhrs9</i>	NADP-dependent retinol dehydrogenase/reductase	1.0748		0.4770	0.5784	0.0493
<i>Loc680207</i>	hypothetical protein	0.6264		0.1230	0.5773	0.0441
<i>Ehf</i>	similar to ets homologous factor	0.7428		0.1710	0.5769	0.0261
<i>Loc363366</i>	hypothetical protein	0.4728		0.0647	0.5763	0.0268
<i>Ppp1r3b</i>	protein phosphatase 1, regulatory (inhibitor) subunit 3B	0.5812		0.0638	0.5761	0.0280
<i>Loc689763</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5994		0.0994	0.5749	0.0265
<i>Ttc7b</i>	similar to tetratricopeptide repeat domain 7B	0.6721		0.0721	0.5749	0.0110
<i>Loc686159</i>	hypothetical protein	0.7095		0.0298	0.5745	0.0189
<i>Loc683613</i>	similar to Keratin, type II cytoskeletal 6G (Cytokeratin-6G) (CK 6G) (K6g keratin) (Keratin-K6irs) (mK6irs1/Krt2-6g)	0.5832		0.0603	0.5743	0.0422
<i>Loc679495</i>	hypothetical protein	0.7495		0.1100	0.5741	0.0316
<i>Eraf</i>	similar to erythroid associated factor	0.5822		0.0909	0.5734	0.0267
<i>Rgd1562071</i>	similar to Src-like-adaptor 2 (Src-like adapter protein 2) (SLAP-2)	0.9235		0.4950	0.5729	0.0214
<i>Loc501274</i>	hypothetical protein	0.5803		0.0595	0.5719	0.0260
<i>Loc685124</i>	hypothetical protein	0.7444		0.0741	0.5705	0.0098
<i>Loc501274</i>	hypothetical protein	0.5377		0.0503	0.5705	0.0159

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rep15</i>	similar to 2210417D09Rik protein	0.5567		0.0772	0.5704	0.0204
<i>Slc15a5</i>	hypothetical protein	0.6292		0.0556	0.5704	0.0191
<i>Loc683311</i>	retinal S-antigen	0.4788		0.0797	0.5696	0.0467
<i>Tbx21</i>	similar to T-box transcription factor TBX21 (T-box protein 21) (Transcription factor TBLYM) (T-cell-specific T-box transcription factor T-bet)	0.6584		0.0731	0.5674	0.0151
<i>Rgd1562446</i>	hypothetical protein	0.7434		0.2900	0.5672	0.0426
<i>Loc362464</i>	similar to aryl hydrocarbon receptor nuclear translocator-like 2	0.7499		0.2780	0.5670	0.0429
<i>Plagl2</i>	similar to pleiomorphic adenoma gene-like 2	0.5595		0.1160	0.5668	0.0342
<i>Shf</i>	similar to SHB (Src homology 2 domain containing) adaptor protein B	0.6314		0.0751	0.5657	0.0090
<i>Rufy4</i>	similar to FYVE and coiled-coil domain containing 1	0.5383		0.0547	0.5657	0.0482
<i>Loc683068</i>	hypothetical protein	0.5069		0.0690	0.5656	0.0426
<i>Lcn2</i>	lipocalin 2	0.6980		0.1330	0.5655	0.0240
<i>Map3k6</i>	similar to mitogen-activated protein kinase kinase kinase 6	0.6821		0.0806	0.5652	0.0115
<i>Loc686128</i>	similar to kelch repeat and BTB (POZ) domain containing 5	0.6955		0.1290	0.5650	0.0401
<i>Rgd1563293</i>	similar to Beclin-1 (Coiled-coil myosin-like BCL2-interacting protein) (Protein GT197)	0.5272		0.0742	0.5646	0.0090
<i>Stat4</i>	signal transducer and activator of transcription 4	0.5643		0.0588	0.5642	0.0319
<i>Loc501274</i>	hypothetical protein	0.5080		0.1020	0.5641	0.0437

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Bpil1</i>	similar to Bactericidal/permeability-increasing protein-like 1 precursor	0.5541		0.1280	0.0470
<i>Lgals5</i>	lectin, galactose binding, soluble 5	0.6891		0.2070	0.0275
<i>Rgd1307851</i>	hypothetical protein LOC287741	0.5687		0.0980	0.0229
<i>Rspry1</i>	similar to F16A11.1	0.6331		0.1140	0.0500
<i>Spdef</i>	similar to SAM pointed domain containing ets transcription factor	0.6476		0.0509	0.0107
<i>Rgd1564575</i>	hypothetical protein	0.6963		0.1010	0.0220
<i>Guca2b</i>	guanylate cyclase activator 2b	0.3655		0.0761	0.0451
<i>Ankrd60</i>	similar to chromosome 20 open reading frame 86	0.5916		0.1050	0.0147
<i>Vash2</i>	similar to Vasohibin-like protein isoform 2	0.7647		0.1770	0.0174
<i>Loc681324</i>	hypothetical protein	0.6905		0.1920	0.0192
<i>Loc684828</i>	similar to Histone H1.2 (H1 VAR.1) (H1c)	0.7437		0.1170	0.0215
<i>Krt31</i>	type I hair keratin KA25	0.6027		0.0678	0.0126
<i>Cyp4f39</i>	similar to cytochrome P450, family 2, subfamily E, polypeptide 2 homolog	0.7896		0.1070	0.0103
<i>Tg</i>	thyroglobulin	0.5911		0.0918	0.0407
<i>Loc690314</i>	hypothetical protein	0.7591		0.0458	0.0116
<i>Loc501274</i>	hypothetical protein	0.4963		0.0776	0.0463
<i>Cacna1f</i>	calcium channel, voltage-dependent, alpha 1F subunit	0.6775		0.0674	0.0204
<i>Cybrd1</i>	cytochrome b reductase 1	0.6176		0.1080	0.0462
<i>Mcoln3</i>	similar to mucolipin 3 (predicted)	0.5355		0.0729	0.0226
<i>Ifi2711</i>	interferon, alpha-inducible protein 27-like	0.6579		0.2050	0.0222

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Klf16</i>	similar to Transcription factor BTEB4 (Basic transcription element binding-protein 4) (BTE-binding protein 4) (Krueppel-like factor 16) (Dopamine receptor-regulating factor)	0.7880		0.1830	0.5541	0.0053
<i>Prodh2</i>	similar to proline dehydrogenase (oxidase) 2 isoform 1	0.5615		0.0959	0.5538	0.0224
<i>Loc685402</i>	similar to galactose-3-O-sulfotransferase 2	0.5183		0.0553	0.5533	0.0425
<i>Gpr142</i>	similar to G protein-coupled receptor 142	0.5783		0.1100	0.5528	0.0313
<i>Asip</i>	agouti (coat color)	0.5414		0.0704	0.5527	0.0312
<i>Tcea3</i>	transcription elongation factor A (SII), 3	0.5957		0.1240	0.5525	0.0425
<i>Loc501274</i>	hypothetical protein	0.5764		0.1210	0.5523	0.0382
<i>Imp5</i>	similar to intramembrane protease 5	0.7832		0.2020	0.5520	0.0342
<i>Ly6g6c</i>	lymphocyte antigen 6 complex G6C	0.7454		0.1150	0.5520	0.0155
<i>Fam122a</i>	hypothetical protein LOC309420	0.4667		0.1260	0.5519	0.0500
<i>Loc501274</i>	hypothetical protein	0.5738		0.1020	0.5510	0.0350
<i>Loc501274</i>	hypothetical protein	0.5178		0.0710	0.5507	0.0293
<i>Fam83a</i>	hypothetical protein	0.5444		0.0813	0.5507	0.0377
<i>Loc690951</i>	hypothetical protein	0.5544		0.0917	0.5504	0.0423
<i>Cd8a</i>	CD8 antigen, alpha chain	0.5357		0.1770	0.5504	0.0264
<i>Dpep2</i>	dipeptidase 2	0.6385		0.0798	0.5496	0.0089
<i>Npal1</i>	similar to non-imprinted in Prader-Willi/Angelman syndrome 2	0.4856		0.0609	0.5492	0.0128
<i>Loc688423</i>	hypothetical protein	0.5171		0.0513	0.5484	0.0443

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Abcc2</i>	similar to Canalicular multispecific organic anion transporter 1 (ATP-binding cassette sub-family C member 2) (Multidrug resistance-associated protein 2) (Canalicular multidrug resistance protein)	0.5987		0.0578	0.5484	0.0090
<i>Cks2</i>	similar to CDC28 protein kinase regulatory subunit 2	0.5605		0.2700	0.5480	0.0214
<i>Krt73</i>	similar to type II keratin Kb36	0.6670		0.0354	0.5479	0.0341
<i>Rbp3</i>	similar to Interphotoreceptor retinoid-binding protein precursor (IRBP) (Interstitial retinol-binding protein)	0.6294		0.1210	0.5476	0.0394
<i>Gprin2</i>	hypothetical protein	0.5319		0.0515	0.5458	0.0405
<i>Loc684864</i>	hypothetical protein	0.7140		0.1180	0.5457	0.0255
<i>Loc685743</i>	hypothetical protein	0.5360		0.0564	0.5455	0.0369
<i>Hcst</i>	hematopoietic cell signal transducer	0.5718		0.0812	0.5453	0.0211
<i>Rgd1311475</i>	similar to Hook-related protein 1	0.7655		0.0779	0.5452	0.0043
<i>Rab43</i>	Ras-related protein RAB43	0.7320		0.2450	0.5441	0.0315
<i>Oas1h</i>	2'-5' oligoadenylate synthetase 1H	0.6353		0.1570	0.5435	0.0428
<i>Accn3</i>	amiloride-sensitive cation channel 3	0.4981		0.0704	0.5435	0.0404
<i>Loc679649</i>	similar to betaine-homocysteine methyltransferase 2	0.5536		0.0773	0.5430	0.0454
<i>Hdhd1a</i>	similar to haloacid dehalogenase-like hydrolase domain	0.5636		0.0612	0.5426	0.0132
<i>Loc690170</i>	hypothetical protein	0.5110		0.0639	0.5426	0.0301
<i>Loc498236</i>	hypothetical protein LOC498236	0.5866		0.0530	0.5419	0.0112
<i>Lax1</i>	hypothetical protein LOC498232	0.5907		0.0762	0.5415	0.0329
<i>Rgd1559500</i>	similar to nidogen 2	0.4805		0.0579	0.5415	0.0245

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Slc22a18</i>	tumor suppressing subtransferable candidate 5	0.4838		0.0587	0.5414	0.0369
<i>Lrit1</i>	leucine rich repeat containing 21	0.5776		0.0763	0.5411	0.0177
<i>Otoa</i>	similar to otoancorin	0.7016		0.0310	0.5404	0.0023
<i>Crygn</i>	similar to crystallin, gamma N	0.7003		0.1530	0.5402	0.0311
<i>Loc682508</i>	similar to ribosomal protein S10	0.6254		0.1560	0.5392	0.0454
<i>Loc689144</i>	hypothetical protein	0.4811		0.0514	0.5376	0.0310
<i>Loc501274</i>	hypothetical protein	0.5050		0.0813	0.5357	0.0434
<i>Loc690517</i>	similar to Ornithine decarboxylase (ODC)	0.6267		0.1200	0.5354	0.0441
<i>Loc501274</i>	hypothetical protein	0.4880		0.0516	0.5354	0.0234
<i>Gpr120</i>	G protein-coupled receptor 120	0.6868		0.0952	0.5348	0.0257
<i>Slc23a1</i>	solute carrier family 23 (nucleobase transporters), member 1	0.5626		0.0587	0.5343	0.0269
<i>Uox</i>	urate oxidase	0.4716		0.0637	0.5342	0.0114
<i>Adamts8</i>	similar to ADAMTS-8 precursor (A disintegrin and metalloproteinase with thrombospondin motifs 8) (ADAM-TS 8) (ADAM-TS8) (METH-2)	0.6990		0.1880	0.5341	0.0301
<i>Loc682226</i>	hypothetical protein	0.6188		0.0779	0.5335	0.0384
<i>Trpm5</i>	similar to transient receptor potential cation channel, subfamily M, member 5	0.6086		0.0611	0.5330	0.0091
<i>Il20</i>	similar to interleukin 20 isoform 2	0.5714		0.1150	0.5329	0.0397
<i>Ptcra</i>	similar to pre T-cell antigen receptor alpha	0.6881		0.0470	0.5325	0.0119
<i>Loc691872</i>	hypothetical protein	0.5889		0.0812	0.5324	0.0202
<i>Loc681114</i>	hypothetical protein	0.6352		0.1100	0.5321	0.0275
<i>Loc688109</i>	hypothetical protein	0.5803		0.0595	0.5320	0.0238
<i>Loc366772</i>	hypothetical protein LOC366772	0.4310		0.0628	0.5313	0.0443
<i>Rdh8</i>	similar to retinol dehydrogenase 8	0.6065		0.0946	0.5297	0.0179

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Cxcr3</i>	chemokine (C-X-C motif) receptor 3	0.5213		0.0660	0.5294	0.0215
<i>Golt1b</i>	similar to golgi transport 1 homolog B	0.7092		0.2400	0.5283	0.0376
<i>Kcnk18</i>	tandem-pore K ⁺ (K(2P)) channel	0.6874		0.1600	0.5281	0.0234
<i>Nanos2</i>	similar to nanos homolog 2	0.5800		0.1190	0.5276	0.0478
<i>Cyp2a1</i>	Cytochrome P450 IIA1 (hepatic steroid hydroxylase IIA1)	0.6169		0.0586	0.5260	0.0116
<i>Loc691436</i>	similar to ubiquitin-conjugating enzyme E2S	0.6276		0.1880	0.5259	0.0306
<i>Defb43</i>	defensin beta 43	0.5501		0.0618	0.5248	0.0387
<i>Prp2</i>	proline-rich protein PRP2	0.4173		0.0560	0.5246	0.0407
<i>Loc689731</i>	hypothetical protein	0.5554		0.0901	0.5246	0.0449
<i>Rgd1560483</i>	similar to Cystatin S precursor (LM protein)	0.4737		0.0569	0.5244	0.0347
<i>Serpina3n</i>	serine protease inhibitor 2c	0.4613		0.4500	0.5242	0.0104
<i>Kcnv2</i>	similar to potassium channel, subfamily V, member 2	0.4947		0.0587	0.5236	0.0300
<i>Bsnd</i>	Bartter syndrome, infantile, with sensorineural deafness (Barttin)	0.4805		0.0507	0.5234	0.0417
<i>Taar7a</i>	trace-amine-associated receptor 7a	0.5912		0.0581	0.5219	0.0369
<i>Hoxa9l</i>	similar to homeobox protein A9	0.6103		0.1510	0.5218	0.0146
<i>Irg1</i>	similar to Immune-responsive protein 1	0.6590		0.1030	0.5216	0.0198
<i>Loc685046</i>	hypothetical protein	0.5964		0.0749	0.5210	0.0081
<i>Upk1a</i>	similar to uroplakin 1A	0.5648		0.3440	0.5205	0.0298
<i>Rgd1562674</i>	similar to kinase suppressor of ras 2	0.6458		0.1250	0.5201	0.0417
<i>Loc678919</i>	hypothetical protein	0.5562		0.0508	0.5201	0.0322
<i>Mybphl</i>	hypothetical protein LOC310782	0.4859		0.0529	0.5192	0.0399
<i>Rgd1305450</i>	similar to homeobox C11	0.7359		0.0438	0.5192	0.0033
<i>Loc679861</i>	similar to MIC2 like 1	0.4928		0.0835	0.5186	0.0410

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Sh2d4b</i>	similar to SH2 domain containing 4B	0.5451		0.0791	0.5184	0.0344
<i>Ccno</i>	similar to uracil-DNA glycosylase 2 isoform a	0.5242		0.0792	0.5181	0.0367
<i>41531</i>	similar to septin 10 isoform 1	0.5455		0.0762	0.5181	0.0221
<i>Rgd1561983</i>	similar to mucin 5, subtype B, tracheobronchial	0.5741		0.0658	0.5179	0.0150
<i>Loc686411</i>	similar to Prostatic steroid-binding protein C1 chain precursor (Prostatein peptide C1)	0.4198		0.0561	0.5177	0.0406
<i>Rnf17</i>	similar to ring finger protein 17 long isoform	0.6668		0.0715	0.5175	0.0227
<i>Loc682438</i>	hypothetical protein	0.8207		0.2300	0.5165	0.0164
<i>Foxe3</i>	similar to forkhead box E3	0.8458		0.2110	0.5153	0.0016
<i>Loc683117</i>	similar to Ig lambda-5 chain C region	0.7113		0.1090	0.5153	0.0207
<i>Loc501274</i>	hypothetical protein	0.5451		0.1540	0.5150	0.0492
<i>Wdr27</i>	similar to WD repeat domain 27	0.6363		0.1750	0.5147	0.0079
<i>Ccdc102a</i>	similar to CG31638-PA	0.5951		0.0541	0.5142	0.0124
<i>Rgd1562291</i>	similar to Human T-cell leukemia virus enhancer factor (Forkhead box protein N2)	0.6311		0.1610	0.5129	0.0376
<i>Loc682956</i>	hypothetical protein	0.4994		0.0507	0.5126	0.0345
<i>Rfp14a</i>	similar to ret finger protein-like 4	0.5442		0.0626	0.5123	0.0317
<i>Tesp2</i>	testicular serine protease 2	0.5441		0.0995	0.5120	0.0412
<i>Loc501274</i>	hypothetical protein	0.4628		0.0692	0.5120	0.0441
<i>Krt40</i>	type I hair keratin KA36	0.6050		0.1450	0.5118	0.0276
<i>Crtam</i>	similar to cytotoxic and regulatory T cell molecule	0.6021		0.1050	0.5115	0.0340
<i>Loc680211</i>	hypothetical protein	0.6800		0.1020	0.5112	0.0213
<i>Loc687873</i>	similar to kallikrein 5 preproprotein	0.7212		0.0397	0.5109	0.0042

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc679355</i>	similar to lipoxygenase homology domains 1	0.7479		0.2750	0.5107	0.0071
<i>Aadacl3</i>	similar to arylacetamide deacetylase	0.5816		0.0714	0.5102	0.0188
<i>Sec14l3</i>	similar to SEC14-like protein 3 (45 kDa secretory protein) (rsec45)	0.4708		0.0535	0.5101	0.0111
<i>Casp14</i>	similar to Caspase-14 precursor (CASP-14) (Mini-ICE) (MICE)	0.4527		0.0561	0.5101	0.0188
<i>Rps4y2</i>	similar to 40S ribosomal protein S4, X isoform	0.7393		0.3050	0.5098	0.0460
<i>Mtch2</i>	similar to Mitochondrial carrier homolog 2	0.6108		0.1950	0.5095	0.0207
<i>Loc680007</i>	hypothetical protein	0.4327		0.1160	0.5093	0.0414
<i>E2f7</i>	similar to E2F transcription factor 7	0.5972		0.2010	0.5089	0.0442
<i>Loc687465</i>	hypothetical protein	0.7072		0.0882	0.5087	0.0165
<i>Loc689585</i>	hypothetical protein	0.6979		0.1960	0.5086	0.0382
<i>Slco2a1</i>	solute carrier organic anion transporter family, member 2a1	0.8496		0.5430	0.5080	0.0197
<i>Rpgrip1</i>	retinitis pigmentosa GTPase regulator interacting protein 1	0.8672		0.5470	0.5078	0.0253
<i>Loc501274</i>	hypothetical protein	0.5342		0.0576	0.5077	0.0126
<i>Loc304903</i>	similar to Pappalysin-2 precursor (Pregnancy-associated plasma protein-A2) (PAPP-A2) (Pregnancy-associated plasma protein-E1) (PAPP-E) isoform 1	0.4647		0.0528	0.5073	0.0353
<i>Rcvrn</i>	recoverin	0.7935		0.4780	0.5072	0.0452
<i>Rnf180</i>	hypothetical protein	0.5400		0.0518	0.5068	0.0138
<i>Actl7b</i>	actin-like 7b	0.5694		0.0697	0.5066	0.0199

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc304903</i>	similar to Pappalysin-2 precursor (Pregnancy-associated plasma protein-A2) (PAPP-A2) (Pregnancy-associated plasma protein-E1) (PAPP-E)	0.5216		0.0554	0.5065	0.0093
<i>Tnfrsf26</i>	similar to tumor necrosis factor receptor superfamily, member 26	0.6137		0.0643	0.5062	0.0018
<i>Loc688661</i>	similar to polyubiquitin	0.5781		0.0553	0.5061	0.0245
<i>Loc680330</i>	hypothetical protein	0.5376		0.0728	0.5037	0.0358
<i>Pkib</i>	cAMP-dependent protein kinase inhibitor beta isoform 1	0.6289		0.1760	0.5036	0.0379
<i>Loc501274</i>	hypothetical protein	0.5324		0.0872	0.5033	0.0283
<i>Loc498705</i>	hypothetical protein LOC498705	0.4656		0.0519	0.5030	0.0336
<i>Plagl1</i>	pleiomorphic adenoma gene-like 1	0.8324		0.5100	0.5028	0.0106
<i>Loc501274</i>	hypothetical protein	0.5091		0.1030	0.5025	0.0397
<i>Tmem213</i>	hypothetical protein	0.5204		0.0597	0.5018	0.0205
<i>Loc685030</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.5453		0.0855	0.5016	0.0231
<i>Cyp2c7</i>	cytochrome P450, family 2, subfamily c, polypeptide 7	0.4242		0.1330	0.5016	0.0474
<i>Ckap2</i>	similar to cytoskeleton associated protein 2	0.5392		0.1130	0.5012	0.0401
<i>Rgd1564276</i>	similar to Serine/threonine-protein kinase MARK2 (MAP/microtubule affinity- regulating kinase 2) (ELKL motif kinase) (EMK1) (PAR1 homolog)	0.6156		0.0743	0.5010	0.0351
<i>F2</i>	coagulation factor 2	0.5936		0.0975	0.5010	0.0345
<i>Loc689322</i>	hypothetical protein	0.5833		0.0670	0.5004	0.0196
<i>Glp2r</i>	glucagon-like peptide-2 receptor precursor	0.4877		0.1020	0.5000	0.0296

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc685485</i>	hypothetical protein	0.4671		0.0910	0.4999	0.0264
<i>Oxtr</i>	oxytocin receptor	0.5814		0.1020	0.4979	0.0297
<i>Rgd1309707</i>	similar to Importin alpha-2 subunit (Karyopherin alpha-2 subunit) (SRP1-alpha) (RAG cohort protein 1)	0.6177		0.1000	0.4966	0.0367
<i>Klri1</i>	killer cell lectin-like receptor family I member 1	0.3851		0.0863	0.4964	0.0493
<i>Igsf7</i>	similar to Cd300D antigen	0.4559		0.0689	0.4962	0.0293
<i>Mef2b</i>	hypothetical protein LOC498607	0.6144		0.2430	0.4962	0.0427
<i>Cldnd2</i>	hypothetical protein	0.6874		0.1560	0.4957	0.0189
<i>Gng13</i>	similar to guanine nucleotide binding protein 13, gamma	0.3553		0.0565	0.4956	0.0436
<i>Lctf</i>	similar to lactase-like	0.5073		0.0638	0.4955	0.0105
<i>Loc501274</i>	hypothetical protein	0.5433		0.1180	0.4955	0.0395
<i>Rgd1564666</i>	hypothetical protein	0.5684		0.1780	0.4955	0.0370
<i>Loc688731</i>	hypothetical protein	0.9035		0.8910	0.4950	0.0173
<i>Grpcb</i>	similar to Submandibular gland secretory Glx-rich protein CB precursor (GRP-CB) (Contiguous repeat polypeptide) (CRP)	0.5092		0.0837	0.4947	0.0382
<i>Hoxb5</i>	similar to Homeobox protein Hox-B5 (Hox- 2.1) (MU-1) (H24.1)	0.4929		0.0730	0.4945	0.0128
<i>Foxd2</i>	similar to Forkhead box protein D2 (Mesoderm/mesenchyme forkhead 2) (MF- 2)	0.5689		0.0827	0.4927	0.0342
<i>Otp</i>	similar to Homeobox protein orthopedia isoform 1	0.5826		0.0771	0.4921	0.0056
<i>Taar9</i>	trace-amine-associated receptor 9	0.3782		0.0534	0.4915	0.0386

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Galnt12</i>	similar to UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 12	0.5576		0.0930	0.4910	0.0367
<i>Loc691333</i>	hypothetical protein	0.4188		0.0545	0.4894	0.0481
<i>Wfdc12</i>	WAP four-disulfide core domain 12	0.4734		0.1150	0.4892	0.0490
<i>Slc15a1</i>	solute carrier family 15 (oligopeptide transporter), member 1 isoform pgPepT1	0.7439		0.3320	0.4890	0.0423
<i>Loc689569</i>	similar to vitamin A-deficient testicular protein 11-like	0.4749		0.0539	0.4885	0.0426
<i>Loc691073</i>	similar to karyopherin (importin) alpha 2	0.4997		0.1380	0.4884	0.0323
<i>Adh7</i>	alcohol dehydrogenase 7 (class IV), mu or sigma polypeptide	0.7452		0.4210	0.4875	0.0469
<i>Loc684621</i>	similar to germinal histone H4 gene	0.4208		0.0529	0.4853	0.0322
<i>Tll2</i>	similar to tolloid-like 2	0.5695		0.0841	0.4843	0.0259
<i>Loc502758</i>	similar to olfactory receptor 437	0.4355		0.1980	0.4836	0.0238
<i>Uncx</i>	Unc4.1 homeobox	0.5554		0.0896	0.4833	0.0079
<i>Rgd1562156</i>	similar to CLM3	0.4186		0.0609	0.4831	0.0489
<i>Loc682713</i>	hypothetical protein	0.5942		0.0705	0.4827	0.0203
<i>Loc685364</i>	similar to developmental pluripotency-associated 2	0.6000		0.1670	0.4823	0.0357
<i>Loc684568</i>	similar to solute carrier family 17 (sodium phosphate), member 4	0.6451		0.0750	0.4810	0.0143
<i>Hoxb13</i>	similar to Homeobox protein Hox-B13	0.4362		0.0675	0.4799	0.0312
<i>Rgd1565598</i>	similar to serine/threonine kinase	0.4322		0.0734	0.4793	0.0369
<i>Lum</i>	lumican	0.6889		0.2140	0.4789	0.0229
<i>Dcdc2</i>	similar to Doublecortin domain-containing protein 2	0.7053		0.3320	0.4788	0.0278
<i>Rgd1562297</i>	hypothetical protein	0.6823		0.0956	0.4783	0.0111

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689983</i>	hypothetical protein	0.3754		0.0694	0.4779	0.0463
<i>Lmod3</i>	similar to leiomodlin 3 (fetal)	0.5888		0.1590	0.4766	0.0369
<i>Mrgprb5</i>	MAS-related G protein-coupled receptor, member B5	0.4808		0.1880	0.4760	0.0441
<i>Loc502933</i>	similar to CG7709-PA	0.4930		0.0555	0.4750	0.0416
<i>Loc681895</i>	hypothetical protein	0.5931		0.0659	0.4748	0.0125
<i>Loc501274</i>	similar to RIKEN cDNA 5031410I06	0.4151		0.0795	0.4747	0.0341
<i>Loc691813</i>	similar to phospholipase A2, group IVC (cytosolic, calcium-independent)	0.4858		0.1020	0.4745	0.0368
<i>Loc685378</i>	similar to developmental pluripotency associated 4 isoform 1	0.4215		0.0649	0.4744	0.0122
<i>Loc689541</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5458		0.1500	0.4742	0.0443
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5661		0.0981	0.4731	0.0455
<i>Rgd1562865</i>	similar to BTB and CNC homology 1, basic leucine zipper transcription factor 2	0.6322		0.0736	0.4723	0.0031
<i>Loc501274</i>	similar to RIKEN cDNA 5031410I06	0.4956		0.0959	0.4715	0.0227
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5544		0.0581	0.4711	0.0226
<i>Tas2r134</i>	similar to taste receptor, type 2, member 134	0.4595		0.0688	0.4710	0.0450
<i>Rgd1308215</i>	similar to Protein FAM57B	0.5114		0.0895	0.4706	0.0237
<i>Sh3rf2</i>	SH3 domain containing ring finger 2	0.7672		0.1170	0.4703	0.0005
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 2	0.5082		0.1630	0.4694	0.0454
<i>Loc679426</i>	hypothetical protein	0.6768		0.0770	0.4692	0.0318

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Slc1a7</i>	similar to solute carrier family 1 (glutamate transporter), member 7	0.5642		0.1280	0.4692	0.0081
<i>Loc690266</i>	similar to Dynein heavy chain at 36C CG5526-PA	0.6828		0.1800	0.4670	0.0446
<i>Loc683700</i>	hypothetical protein	0.6822		0.2890	0.4666	0.0378
<i>Tas2r134</i>	taste receptor, type 2, member 134	0.5047		0.0765	0.4659	0.0427
<i>Vom2r-Ps96</i>	similar to vomeronasal 2, receptor, 2	0.3859		0.0625	0.4649	0.0365
<i>Loc688849</i>	hypothetical protein	0.6167		0.2110	0.4643	0.0463
<i>Loc680199</i>	hypothetical protein	0.5601		0.0679	0.4629	0.0296
<i>Ube2c</i>	similar to ubiquitin-conjugating enzyme E2C	0.5174		0.0828	0.4628	0.0274
<i>Rgd1305537</i>	similar to periphilin 1 isoform 4	0.5461		0.0762	0.4623	0.0229
<i>Loc687067</i>	hypothetical protein	0.4301		0.0739	0.4611	0.0389
<i>Loc690143</i>	hypothetical protein	0.4631		0.0706	0.4611	0.0104
<i>Ppp1r211</i>	similar to type 1 protein phosphatase inhibitor	0.5874		0.1630	0.4609	0.0238
<i>Loc679601</i>	hypothetical protein	0.5897		0.0603	0.4605	0.0176
<i>Loc684698</i>	similar to mannose-6-phosphate receptor binding protein 1	0.4962		0.0827	0.4603	0.0459
<i>Loc689332</i>	hypothetical protein	0.7131		0.2450	0.4601	0.0333
<i>Loc681199</i>	hypothetical protein	0.4492		0.0681	0.4594	0.0104
<i>Krtap15-1</i>	similar to keratin associated protein 15	0.4629		0.0751	0.4592	0.0492
<i>Loc689989</i>	hypothetical protein	0.6157		0.0793	0.4592	0.0363
<i>Taar8c</i>	trace-amine-associated receptor 8c	0.4381		0.1070	0.4581	0.0370
<i>Prr5</i>	similar to Rho GTPase activating protein 8 (predicted)	0.5407		0.0535	0.4579	0.0222
<i>Loc691356</i>	hypothetical protein	0.5536		0.1540	0.4568	0.0374
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.4011		0.0994	0.4558	0.0213

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Cd27</i>	hypothetical protein LOC500318	0.4750		0.0592	0.4552	0.0244
<i>Bucs1</i>	similar to butyryl Coenzyme A synthetase 1	0.6527		0.1210	0.4548	0.0153
<i>Loc681106</i>	hypothetical protein	0.4592		0.0583	0.4548	0.0439
<i>Loc689983</i>	hypothetical protein	0.3352		0.0528	0.4545	0.0454
<i>Loc688624</i>	hypothetical protein	0.5047		0.1090	0.4542	0.0427
<i>Chrnd</i>	cholinergic receptor, nicotinic, delta polypeptide	0.4968		0.0765	0.4538	0.0167
<i>Rtp2</i>	similar to receptor transporting protein 2	0.5641		0.0987	0.4532	0.0303
<i>Loc679580</i>	similar to MIC2 like 1	0.4001		0.0702	0.4528	0.0454
<i>Sec1</i>	similar to Galactoside 2-alpha-L-fucosyltransferase 3 (GDP-L-fucose:beta-D-galactoside 2-alpha-L-fucosyltransferase 3) (Alpha(1,2)FT 3) (Fucosyltransferase 10) (Secretory blood group protein 1)	0.8743		0.1530	0.4527	0.0159
<i>Loc691014</i>	similar to developmental pluripotency-associated 3	0.4172		0.0561	0.4522	0.0142
<i>Galr3</i>	galanin receptor 3	0.5241		0.2320	0.4521	0.0358
<i>Hs3st6</i>	similar to heparan sulfate (glucosamine) 3-O-sulfotransferase 6	0.4420		0.0529	0.4520	0.0368
<i>Amy2</i>	similar to amylase 2, pancreatic	0.4246		0.1230	0.4509	0.0341
<i>Hspb3</i>	heat shock 27kD protein family, member 3	0.4449		0.0866	0.4492	0.0352
<i>Dppa5</i>	similar to developmental pluripotency associated 5	0.4377		0.0864	0.4486	0.0349
<i>Ostbeta</i>	similar to organic solute transporter beta	0.4190		0.0784	0.4476	0.0330
<i>Loc687182</i>	hypothetical protein	0.5026		0.0889	0.4468	0.0199
<i>Hist1h3g</i>	similar to histone 1, H2ai (predicted)	0.4008		0.0598	0.4458	0.0294
<i>Rgd1563016</i>	similar to RP11-506B15.1 protein isoform 1	0.4851		0.1450	0.4448	0.0465
<i>Anxa13</i>	similar to annexin A13	0.4934		0.1270	0.4439	0.0171

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Pglyrp3b</i>	similar to peptidoglycan recognition protein 3	0.3712		0.0595	0.4438	0.0407
<i>Loc501333</i>	hypothetical protein	0.5212		0.1510	0.4432	0.0102
<i>Loc682556</i>	hypothetical protein	0.6836		0.0141	0.4420	0.0063
<i>Gcg</i>	glucagon	0.5653		0.0632	0.4419	0.0115
<i>Loc689983</i>	hypothetical protein	0.3389		0.0626	0.4416	0.0426
<i>Nanog</i>	similar to Nanog homeobox	0.4023		0.0712	0.4410	0.0462
<i>Lgr5</i>	similar to Leucine-rich repeat-containing G-protein coupled receptor 5 precursor (G-protein coupled receptor 49) (Orphan G-protein coupled receptor FEX)	0.4385		0.0543	0.4402	0.0226
<i>H2afj</i>	similar to H2A histone family, member J	0.3758		0.0860	0.4394	0.0382
<i>Loc680230</i>	hypothetical protein	0.5288		0.0577	0.4389	0.0264
<i>Sprr1b</i>	similar to Cornifin B (Small proline-rich protein 1B) (SPR1B) (SPR1 B)	0.4551		0.1200	0.4372	0.0468
<i>Ms4a1</i>	similar to B-cell surface protein CD20 homolog (B-cell differentiation antigen Ly-44)	0.4341		0.0797	0.4368	0.0299
<i>Loc680862</i>	similar to triggering receptor expressed on myeloid cells 3	0.4806		0.0860	0.4367	0.0221
<i>Loc685628</i>	hypothetical protein	0.4879		0.0586	0.4364	0.0493
<i>Dppa5</i>	similar to developmental pluripotency associated 5	0.3490		0.0592	0.4360	0.0313
<i>Loc497963</i>	nitric oxide synthase 2, inducible	0.4893		0.0904	0.4353	0.0287
<i>Fam64a</i>	hypothetical protein	0.4888		0.0504	0.4349	0.0454
<i>Loc679977</i>	similar to retinoic acid early transcript 1L (predicted)	0.4878		0.1250	0.4346	0.0219
<i>Loc679762</i>	hypothetical protein	0.4652		0.0715	0.4342	0.0304

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688714</i>	similar to ring-box 1	0.4803		0.1560	0.4337	0.0253
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3105		0.0532	0.4328	0.0424
<i>Loc687062</i>	hypothetical protein	0.4611		0.0782	0.4319	0.0427
<i>Loc691923</i>	hypothetical protein	0.5946		0.1190	0.4303	0.0418
<i>Xcr1</i>	similar to Chemokine XC receptor 1 (XC chemokine receptor 1) (Lymphotactin receptor) (SCM1 receptor) (mXCR1)	0.3746		0.0515	0.4296	0.0233
<i>Epx</i>	similar to Eosinophil peroxidase precursor (EPO)	0.5271		0.0588	0.4293	0.0123
<i>Ly6b</i>	lymphocyte antigen 6 complex, locus B	0.4892		0.0588	0.4286	0.0027
<i>Loc501274</i>	hypothetical protein	0.4689		0.1040	0.4277	0.0195
<i>L1td1</i>	hypothetical protein	0.5846		0.0748	0.4270	0.0327
<i>Sec14l4</i>	similar to SEC14 (<i>S. cerevisiae</i>)-like 2	0.5206		0.0516	0.4270	0.0210
<i>Hspb2</i>	heat shock 27kD protein 2	0.3819		0.1400	0.4260	0.0412
<i>Cyp8b1</i>	cytochrome P450, family 8, subfamily b, polypeptide 1	0.4527		0.0717	0.4253	0.0272
<i>Loc680839</i>	similar to CG4090-PA	0.5116		0.0810	0.4251	0.0335
<i>Rgd1561777</i>	similar to Na ⁺ dependent glucose transporter 1	0.5534		0.1190	0.4248	0.0270
<i>Gata4</i>	GATA binding protein 4	0.4187		0.0782	0.4239	0.0360
<i>Loc680919</i>	hypothetical protein	0.5702		0.2090	0.4233	0.0372
<i>Irx1</i>	similar to Iroquois-class homeodomain protein IRX-1 (Iroquois homeobox protein 1) (Homeodomain protein IRXA1) isoform 1	0.5625		0.0707	0.4232	0.0057
<i>Tnp2</i>	transition protein 2	0.4477		0.0627	0.4224	0.0400
<i>Hmgb2</i>	similar to High mobility group protein 2 (HMG-2)	0.3785		0.0791	0.4222	0.0462

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Slc6a5</i>	solute carrier family 6 (neurotransmitter transporter, glycine), member 5	0.4568		0.0768	0.4206	0.0086
<i>Rt1-Ha</i>	RT1 class II, locus Ha	0.4900		0.0556	0.4202	0.0228
<i>Cst9l</i>	similar to Cystatin-9 precursor (Testatin)	0.4238		0.0951	0.4200	0.0374
<i>Loc680117</i>	similar to T-cell leukemia homeobox protein 2 (Homeobox protein Hox-11L1) (Homeobox TLX-2) (PMUR10F) isoform 2	0.7418		0.1620	0.4190	0.0135
<i>Loc687820</i>	similar to coiled-coil domain containing 6	0.5521		0.0548	0.4188	0.0066
<i>Nmur1</i>	G protein-coupled receptor 66	0.6574		0.1260	0.4185	0.0162
<i>Trpv5</i>	transient receptor potential cation channel, subfamily V, member 5	0.4426		0.0583	0.4173	0.0175
<i>Smtnl1</i>	similar to smoothelin-like 1	0.4429		0.0599	0.4172	0.0472
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.4657		0.1710	0.4163	0.0150
<i>Loc687341</i>	hypothetical protein	0.4381		0.0615	0.4159	0.0311
<i>Loc687420</i>	hypothetical protein	0.8387		0.4410	0.4151	0.0476
<i>Loc501317</i>	hypothetical protein	0.4016		0.1150	0.4143	0.0195
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.4176		0.0706	0.4138	0.0052
<i>Raet1e</i>	similar to retinoic acid early transcript 1L (predicted)	0.4719		0.0834	0.4117	0.0435
<i>Pax2</i>	similar to Paired box protein Pax-2	0.4126		0.0554	0.4114	0.0498
<i>Loc691748</i>	hypothetical protein	0.3552		0.1020	0.4114	0.0384
<i>Loc686040</i>	similar to Down syndrome cell adhesion molecule	0.4640		0.0884	0.4111	0.0384
<i>Rgd1560927</i>	similar to PEPP subfamily gene 2	0.5240		0.1600	0.4101	0.0418
<i>Ins1</i>	insulin 1	0.4940		0.0728	0.4097	0.0137
<i>Loc687912</i>	similar to high mobility group protein 17	0.4148		0.0582	0.4089	0.0425
<i>Loc689983</i>	hypothetical protein	0.3786		0.0801	0.4084	0.0429
<i>Loc501212</i>	hypothetical protein	0.4582		0.1570	0.4083	0.0207

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689867</i>	hypothetical protein	0.4128		0.0982	0.4079	0.0347
<i>Loc680318</i>	hypothetical protein	0.3358		0.0564	0.4072	0.0439
<i>Dbx1</i>	developing brain homeobox 1	0.5252		0.1130	0.4071	0.0304
<i>Loc686805</i>	hypothetical protein	0.3830		0.0626	0.4070	0.0491
<i>G6pc</i>	glucose-6-phosphatase, catalytic subunit	0.4494		0.0632	0.4063	0.0201
<i>Zdhc11</i>	similar to zinc finger, DHHC domain containing 11	0.5176		0.0798	0.4053	0.0141
<i>Lpar2</i>	similar to endothelial differentiation, lysophosphatidic acid G-protein-coupled receptor 4	0.4401		0.0533	0.4049	0.0272
<i>Rgd1306556</i>	hypothetical protein	0.5306		0.0592	0.4038	0.0057
<i>Cst7</i>	similar to Cystatin F precursor (Leukocystatin) (Cystatin-7) (Cystatin-like metastasis-associated protein) (CMAP)	0.4365		0.0765	0.4034	0.0474
<i>Loc680296</i>	hypothetical protein	0.3914		0.0638	0.4030	0.0250
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3637		0.1110	0.4026	0.0284
<i>Loc684827</i>	hypothetical protein	0.3528		0.1130	0.4024	0.0349
<i>Loc679297</i>	similar to Mucin-2 precursor (Intestinal mucin 2)	0.4436		0.0740	0.4023	0.0496
<i>Loc689727</i>	hypothetical protein	0.4366		0.1670	0.4019	0.0171
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3856		0.1360	0.4018	0.0335
<i>Asb10</i>	similar to ankyrin repeat and SOCS box-containing protein 10	0.3962		0.0596	0.4007	0.0310
<i>Rgd1311406</i>	similar to natural cytotoxicity triggering receptor 2	0.6356		0.4770	0.4006	0.0109
<i>Loc686147</i>	hypothetical protein	0.3784		0.0770	0.4005	0.0243

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc684728</i>	similar to Taste receptor type 1 member 2 precursor (G-protein coupled receptor 71) (Sweet taste receptor T1R2)	0.3900		0.0597	0.4002	0.0354
<i>Rt1-S2</i>	RT1 class Ib, locus H2-TL-like (S2)	0.5011		0.0781	0.3996	0.0485
<i>Loc681388</i>	hypothetical protein	0.4595		0.0716	0.3996	0.0283
<i>Loc498320</i>	similar to RIKEN cDNA 5031410I06	0.3639		0.0820	0.3995	0.0484
<i>Pnpla1</i>	similar to patatin-like phospholipase domain containing 1 isoform 1	1.2819		0.8510	0.3994	0.0404
<i>Loc689742</i>	similar to ubiquitin specific peptidase 17 (homolog)	0.5956		0.0941	0.3992	0.0491
<i>Slc45a2</i>	similar to membrane associated transporter protein	0.5012		0.1120	0.3990	0.0061
<i>Aoc3</i>	amine oxidase, copper containing 3	0.4776		0.0791	0.3988	0.0395
<i>Pramel1</i>	similar to preferentially expressed antigen in melanoma-like 1	0.4016		0.0651	0.3982	0.0224
<i>Loc690645</i>	similar to Kallikrein-1 precursor (Tissue kallikrein) (Kidney/pancreas/salivary gland kallikrein)	0.4564		0.0574	0.3977	0.0210
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3838		0.0923	0.3975	0.0221
<i>Ppp3r2</i>	protein phosphatase 3, regulatory subunit B, alpha isoform	0.4580		0.1100	0.3971	0.0359
<i>Skiip</i>	similar to GLE1 RNA export mediator-like (yeast)	0.5173		0.0559	0.3970	0.0292
<i>Tmc2</i>	similar to transmembrane channel-like gene family 2	0.5357		0.0933	0.3969	0.0115
<i>Ptgfr</i>	prostaglandin F receptor	0.5753		0.2270	0.3965	0.0292
<i>Serpinc1</i>	serine (or cysteine) peptidase inhibitor, clade C (antithrombin), member 1	0.4344		0.0700	0.3961	0.0221

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1306782</i>	similar to NADH-ubiquinone oxidoreductase ESSS subunit, mitochondrial precursor (Complex I-ESSS) (CI-ESSS) (Neuronal protein 17.3) (p17.3) (Np17.3)	0.5494		0.0748	0.3960	0.0038
<i>Rgd1562739</i>	similar to developmental pluripotency-associated 3	0.3089		0.0672	0.3954	0.0438
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3154		0.0545	0.3954	0.0248
<i>Hoxc4</i>	similar to Homeobox protein Hox-C4 (Hox-3.5)	0.4308		0.0565	0.3947	0.0168
<i>Pklr</i>	pyruvate kinase, liver and RBC	0.4446		0.0887	0.3945	0.0410
<i>Try10</i>	trypsin 10 precursor	0.4068		0.1270	0.3941	0.0356
<i>Loc680286</i>	hypothetical protein	0.4148		0.1210	0.3940	0.0429
<i>Loc680323</i>	hypothetical protein	0.4425		0.0669	0.3936	0.0339
<i>Cyp2d3</i>	cytochrome P450, family 2, subfamily d, polypeptide 13	0.5366		0.0642	0.3928	0.0354
<i>Loc688387</i>	hypothetical protein	0.4981		0.0690	0.3919	0.0367
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3975		0.0896	0.3918	0.0191
<i>Loc688888</i>	similar to RRS1 ribosome biogenesis regulator homolog	0.2958		0.0528	0.3914	0.0415
<i>Loc501305</i>	hypothetical protein	0.4242		0.0857	0.3911	0.0449
<i>Btnl8</i>	similar to butyrophilin-like 8	0.4155		0.0690	0.3891	0.0347
<i>Lce1s</i>	hypothetical protein	0.4005		0.0660	0.3884	0.0421
<i>Tnfrsf10b</i>	similar to Tumor necrosis factor receptor superfamily member 10B precursor (Death receptor 5) (MK)	0.7196		0.1070	0.3872	0.0047
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3837		0.0991	0.3869	0.0201
<i>Loc685905</i>	similar to F-box only protein 27	0.4968		0.0853	0.3858	0.0213

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Krtap16-5</i>	hypothetical protein isoform 3	0.3481		0.0809	0.3841	0.0469
<i>Loc691646</i>	hypothetical protein	0.3403		0.0681	0.3841	0.0250
<i>Loc685049</i>	hypothetical protein	0.3873		0.0517	0.3840	0.0282
<i>Loc679018</i>	similar to SON protein	0.4175		0.0808	0.3838	0.0251
<i>Apoc1</i>	apolipoprotein C-I	0.5210		0.2140	0.3822	0.0122
<i>Loc691008</i>	hypothetical protein	0.3924		0.0673	0.3809	0.0440
<i>Krtap16-5</i>	hypothetical protein isoform 1	0.3389		0.0583	0.3809	0.0355
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3715		0.0586	0.3806	0.0117
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3194		0.0663	0.3799	0.0315
<i>Loc685427</i>	similar to zinc finger protein 36, C3H type-like 2	0.5771		0.0948	0.3790	0.0195
<i>Rgd1565430</i>	similar to RIKEN cDNA 1700001F22	0.3306		0.0997	0.3781	0.0256
<i>Loc679544</i>	hypothetical protein	0.4293		0.0646	0.3780	0.0422
<i>Loc691796</i>	hypothetical protein	0.4406		0.1350	0.3772	0.0243
<i>Loc685304</i>	hypothetical protein	0.5291		0.1160	0.3766	0.0182
<i>Enthd1</i>	similar to epsin 2 isoform a	0.3160		0.0523	0.3753	0.0174
<i>Loc690467</i>	similar to RIKEN cDNA 5031410I06	0.3144		0.0550	0.3749	0.0228
<i>Avpr1b</i>	arginine vasopressin receptor 1B	0.4155		0.1040	0.3749	0.0467
<i>Krtap16-5</i>	hypothetical protein isoform 2	0.3196		0.0612	0.3745	0.0294
<i>Rgd1560771</i>	similar to developmental pluripotency-associated 3	0.3262		0.0653	0.3742	0.0258
<i>Loc684306</i>	hypothetical protein	0.3581		0.0572	0.3740	0.0290
<i>Prss1</i>	pancreatic trypsin 1	0.4089		0.0580	0.3713	0.0178
<i>Loc688834</i>	hypothetical protein	0.4229		0.0516	0.3713	0.0228
<i>Loc684898</i>	hypothetical protein	0.5336		0.1360	0.3709	0.0328
<i>Krtap16-5</i>	hypothetical protein isoform 4	0.3568		0.1090	0.3694	0.0368
<i>Olr1645</i>	similar to olfactory receptor Olr1645	0.3428		0.0981	0.3692	0.0442

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Wfdc3</i>	similar to WAP four-disulfide core domain 3 isoform 1 precursor	0.4538		0.0888	0.3688	0.0294
<i>Rgd1559695</i>	similar to c11.1 CG12132-PA	0.4348		0.0699	0.3687	0.0109
<i>Rgd1566146</i>	similar to keratin associated protein 4-10	0.4158		0.0751	0.3686	0.0207
<i>Loc687284</i>	similar to excision repair cross- complementing rodent repair deficiency, complementation group 4	0.3638		0.0573	0.3684	0.0373
<i>Krtap4-7</i>	similar to keratin associated protein 4-7	0.4336		0.1030	0.3674	0.0229
<i>Apoc4</i>	similar to Apolipoprotein C-IV precursor (Apo-CIV) (ApoC-IV) (Apolipoprotein C2- linked) (ACL)	0.4192		0.0633	0.3671	0.0305
<i>Rgd1564129</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.3560		0.0600	0.3669	0.0478
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3509		0.0980	0.3656	0.0263
<i>Loc688410</i>	similar to Spetex-2E protein	0.3049		0.0640	0.3650	0.0479
<i>Odf3l2</i>	similar to outer dense fiber of sperm tails 3-like 1	0.5256		0.1090	0.3644	0.0134
<i>Loc685964</i>	hypothetical protein	0.4046		0.0819	0.3635	0.0379
<i>Slc14a2</i>	solute carrier family 14 (urea transporter), member 2 isoform 2	0.4143		0.0651	0.3630	0.0041
<i>Elane</i>	similar to neutrophil elastase	0.4737		0.1680	0.3624	0.0177
<i>Cebpe</i>	CCAAT/enhancer binding protein , epsilon	0.3062		0.0531	0.3614	0.0383
<i>Rgd1561557</i>	hypothetical protein	0.3531		0.0523	0.3614	0.0482
<i>Ucp3</i>	uncoupling protein 3	0.9625		0.5870	0.3607	0.0376
<i>Sncg</i>	synuclein, gamma	0.5804		0.4060	0.3602	0.0176
<i>Loc690023</i>	hypothetical protein	0.4151		0.0932	0.3585	0.0356

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Loc683117</i>	similar to Immunoglobulin omega chain precursor (VpreB2 protein)	0.4103		0.1060	0.0337
<i>Loc681587</i>	hypothetical protein	0.5376		0.0722	0.0056
<i>Nr5a2</i>	similar to FTZ-F1 beta1 protein	0.3280		0.1110	0.0157
<i>Rgd1559804</i>	hypothetical protein	0.3540		0.0643	0.0321
<i>Loc691998</i>	similar to NACHT, leucine rich repeat and PYD containing 1	0.3980		0.1160	0.0395
<i>Dmrtc2</i>	similar to doublesex and mab-3 related transcription factor 7	0.3576		0.0584	0.0267
<i>Loc494539</i>	spectrin beta-like	0.3620		0.0744	0.0479
<i>Rgd1560580</i>	similar to Y-linked testis-specific protein	0.2785		0.0566	0.0415
<i>Rgd1564941</i>	similar to ankyrin repeat domain 26	0.3017		0.0639	0.0267
<i>Loc689927</i>	similar to keratin associated protein 10-10 isoform 1	0.3768		0.0688	0.0490
<i>Rgd1564317</i>	hypothetical protein	0.2917		0.0590	0.0434
<i>Cyp4a2</i>	cytochrome P450, family 4, subfamily a, polypeptide 14	0.2878		0.1790	0.0454
<i>Loc688663</i>	hypothetical protein	0.3237		0.0581	0.0281
<i>Rgd1309049</i>	hypothetical protein LOC301306	0.3821		0.0778	0.0335
<i>Loc689080</i>	similar to TD and POZ domain-containing protein 1 (MAPP family protein 2)	0.2824		0.0994	0.0459
<i>Loc498460</i>	hypothetical protein LOC498460	0.4176		0.0959	0.0483
<i>Cd209g</i>	similar to CD209 antigen	0.3268		0.0745	0.0211
<i>Rgd1561533</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.3554		0.0615	0.0275
<i>Sbk2</i>	similar to protein kinase Bsk146	0.3793		0.0509	0.0125

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689254</i>	similar to DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 11 (CHL1-like helicase homolog, <i>S. cerevisiae</i>)	0.3270		0.0613	0.3460	0.0416
<i>Loc689895</i>	hypothetical protein	0.4131		0.0891	0.3454	0.0365
<i>Gjb4</i>	gap junction membrane channel protein beta 4	0.3610		0.0847	0.3448	0.0345
<i>Loc679653</i>	similar to Heat shock-related 70 kDa protein 2 (Heat shock protein 70.2)	0.3200		0.0670	0.3440	0.0121
<i>Loc690565</i>	hypothetical protein	0.3568		0.0790	0.3436	0.0245
<i>Loc690969</i>	similar to RIKEN cDNA 5031410I06	0.3839		0.1360	0.3435	0.0376
<i>Loc680218</i>	similar to keratin associated protein 4-7	0.4341		0.0957	0.3432	0.0498
<i>Rgd1564727</i>	similar to cytoplasmic beta-actin	0.4107		0.0660	0.3423	0.0179
<i>Loc684904</i>	hypothetical protein	0.2453		0.0713	0.3416	0.0394
<i>Rgd1560580</i>	similar to Spindlin-like protein 2 (SPIN-2)	0.2513		0.0610	0.3410	0.0450
<i>Loc680468</i>	hypothetical protein	0.3337		0.0518	0.3400	0.0268
<i>Kb21</i>	type II keratin Kb21	0.3922		0.1110	0.3389	0.0360
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.2783		0.0728	0.3386	0.0271
<i>Loc364558</i>	hypothetical protein LOC364558	0.3142		0.0914	0.3377	0.0436
<i>Loc689526</i>	hypothetical protein	0.3483		0.0612	0.3332	0.0410
<i>Mcpt114</i>	similar to Mast cell protease I precursor (RMCP-I) (RMCP-1) (Chymase) (Chymotrysin-like protease) (CLIP protein)	0.2547		0.1100	0.3326	0.0367
<i>Rgd1564763</i>	similar to Diphosphoinositol polyphosphate phosphohydrolase 3 alpha (DIPP-3 alpha) (DIPP3 alpha) (Diadenosine 5,5-P1,P6-hexaphosphate hydrolase 3 alpha) (Nucleoside diphosphate-linked moiety X motif 10) (Nudix motif 10)	0.4296		0.0632	0.3324	0.0205

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688421</i>	similar to Spetex-2F protein	0.2959		0.0644	0.3308	0.0489
#N/A	similar to TD and POZ domain-containing protein 1 (MAPP family protein 2)	0.2725		0.0820	0.3295	0.0329
<i>Vom2r-Ps59</i>	similar to vomeronasal 2, receptor, 2	0.3467		0.0668	0.3289	0.0303
<i>Loc687401</i>	similar to Spetex-2F protein	0.3026		0.0705	0.3275	0.0414
<i>Loc679817</i>	similar to carboxylesterase 1 isoform c precursor	0.4409		0.1400	0.3263	0.0496
<i>Rgd1563405</i>	similar to Protein tyrosine phosphatase type IVA protein 2 (Protein-tyrosine phosphatase 4a2) (Protein-tyrosine phosphatase of regenerating liver 2) (PRL-2)	0.3236		0.1010	0.3260	0.0391
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.2817		0.0666	0.3259	0.0262
<i>Rgd1564317</i>	hypothetical protein	0.2662		0.0636	0.3236	0.0279
<i>Loc689857</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4a	0.3041		0.1200	0.3235	0.0433
<i>Loc683649</i>	similar to type II keratin Kb36	0.3199		0.0549	0.3221	0.0478
<i>Loc685968</i>	similar to Spetex-2F protein	0.2988		0.1170	0.3218	0.0472
<i>Loc364250</i>	Spetex-2G protein	0.3345		0.0894	0.3204	0.0453
<i>Loc687401</i>	similar to Spetex-2F protein	0.3151		0.0709	0.3200	0.0441
<i>Naglt1</i>	Na ⁺ dependent glucose transporter 1	0.2881		0.0558	0.3200	0.0350
<i>Loc690293</i>	hypothetical protein	0.4126		0.0986	0.3177	0.0194
<i>Batf2</i>	similar to basic leucine zipper transcription factor, ATF-like 2	0.3163		0.0531	0.3168	0.0340
<i>Loc498474</i>	similar to Spetex-2F protein	0.2596		0.0903	0.3145	0.0446
<i>Lcn10</i>	similar to lipocalin	0.3899		0.0601	0.3136	0.0301
<i>Loc688148</i>	hypothetical protein	0.3646		0.0825	0.3131	0.0227

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ceacam20</i>	similar to CEA-related cell adhesion molecule 20	0.3508		0.0896	0.3124	0.0260
<i>Hoxb3</i>	similar to Homeobox protein Hox-B3 (Hox-2.7) (MH-23)	0.3872		0.0672	0.3103	0.0279
<i>Dsg4</i>	desmoglein 4	0.2180		0.0522	0.3087	0.0168
<i>Loc687111</i>	similar to Spetex-2F protein	0.2479		0.0597	0.3083	0.0375
<i>Loc687401</i>	similar to Spetex-2F protein	0.2734		0.0605	0.3066	0.0409
<i>Krtap3-1</i>	similar to keratin associated protein 3.1	0.4017		0.1160	0.3065	0.0233
<i>Loc687401</i>	similar to Spetex-2F protein	0.3246		0.0826	0.3062	0.0485
<i>Loc498477</i>	similar to Spetex-2C protein	0.2646		0.0807	0.3056	0.0496
<i>Rgd1565225</i>	similar to Interferon alpha-1 precursor	0.3133		0.0930	0.3055	0.0218
<i>Loc686820</i>	similar to Robo-1	0.6100		0.2560	0.3036	0.0017
<i>Loc498467</i>	similar to Spetex-2F protein	0.2768		0.0876	0.3032	0.0420
<i>Rgd1562097</i>	hypothetical protein	0.2070		0.0692	0.3000	0.0380
<i>Loc691802</i>	hypothetical protein	0.3165		0.0846	0.2999	0.0328
<i>Gzmb</i>	granzyme B	0.2177		0.0522	0.2996	0.0277
<i>Loc678951</i>	hypothetical protein	0.2668		0.0693	0.2994	0.0275
<i>Rgd1562035</i>	similar to Mast cell protease I precursor (RMCP-I) (RMCP-1) (Chymase) (Chymotrysin-like protease) (CLIP protein)	0.2741		0.0515	0.2991	0.0373
<i>Loc498463</i>	similar to Spetex-2C protein	0.2567		0.0632	0.2982	0.0388
<i>Loc678755</i>	similar to Spetex-2F protein	0.2832		0.0636	0.2978	0.0394
<i>Loc679724</i>	similar to Spetex-2F protein	0.2992		0.0705	0.2978	0.0383
<i>Loc681582</i>	hypothetical protein	0.2916		0.0572	0.2971	0.0364
<i>Loc688940</i>	similar to Spetex-2C protein	0.2633		0.0702	0.2968	0.0351
<i>Loc691813</i>	similar to phospholipase A2, group IVC (cytosolic, calcium-independent)	0.4629		0.0774	0.2967	0.0062
<i>Loc498465</i>	hypothetical protein	0.2448		0.0576	0.2956	0.0387

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687164</i>	hypothetical protein	0.2303		0.0599	0.2937	0.0297
<i>Loc685874</i>	similar to Protein CXorf48 (Tumor antigen BJ-HCC-20)	0.3416		0.1440	0.2937	0.0421
<i>Loc690054</i>	hypothetical protein	0.2156		0.0649	0.2934	0.0493
<i>Rgd1564763</i>	similar to Diphosphoinositol polyphosphate phosphohydrolase 3 alpha (DIPP-3 alpha) (DIPP3 alpha) (Diadenosine 5,5-P1,P6-hexaphosphate hydrolase 3 alpha) (Nucleoside diphosphate-linked moiety X motif 10) (Nudix motif 10)	0.4643		0.1230	0.2926	0.0234
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.2944		0.0548	0.2924	0.0462
<i>Krtap16-1</i>	hypothetical protein	0.2752		0.0701	0.2917	0.0185
<i>Loc689478</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.2334		0.0804	0.2896	0.0393
<i>Rgd1560510</i>	similar to TD and POZ domain containing 2	0.2291		0.0659	0.2892	0.0465
<i>Loc688480</i>	similar to serine/threonine kinase	0.2451		0.0758	0.2889	0.0499
<i>Rgd1560096</i>	similar to TD and POZ domain containing 4	0.1881		0.0754	0.2874	0.0479
<i>Cldn17</i>	similar to claudin 17	0.3108		0.1430	0.2862	0.0491
<i>Rgd1562056</i>	similar to MARVEL (membrane-associating) domain containing 3 isoform a	0.5032		0.1210	0.2847	0.0047
<i>Loc690443</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.2329		0.0630	0.2822	0.0362
<i>Loc688384</i>	hypothetical protein	0.2157		0.0508	0.2820	0.0476
<i>Loc688625</i>	hypothetical protein	0.2230		0.0766	0.2816	0.0313
<i>Loc679909</i>	similar to Spetex-2E protein	0.3267		0.1570	0.2811	0.0444
<i>Loc680547</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1810		0.0526	0.2794	0.0420

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1564102</i>	similar to PRAME family member 8	0.1997		0.0737	0.2762	0.0463
<i>Vom2r36</i>	similar to putative pheromone receptor (Go-VN5)	0.2401		0.0796	0.2752	0.0367
<i>Loc301165</i>	hypothetical protein LOC301165	0.2059		0.0794	0.2750	0.0348
<i>Loc681979</i>	granzyme C	0.2600		0.0587	0.2746	0.0282
<i>Obp3</i>	alpha-2u globulin PGCL5	0.1996		0.0769	0.2745	0.0351
<i>Loc680431</i>	similar to Retinal homeobox protein Rx (DRx1) (DRx)	0.2404		0.0551	0.2725	0.0468
<i>Rgd1564843</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2671		0.0617	0.2721	0.0208
<i>Loc688091</i>	hypothetical protein	0.2436		0.0635	0.2705	0.0360
<i>Loc687401</i>	similar to Glutaredoxin-1 (Thioltransferase- 1) (TTase-1)	0.2412		0.0653	0.2692	0.0312
<i>Ifna1</i>	interferon-alpha 1	0.2447		0.1140	0.2642	0.0437
<i>Loc687401</i>	hypothetical protein	0.2678		0.0917	0.2641	0.0487
<i>Loc687356</i>	hypothetical protein	0.2491		0.0511	0.2635	0.0460
<i>Loc501358</i>	hypothetical protein	0.2070		0.0528	0.2626	0.0370
<i>Loc687401</i>	hypothetical protein	0.2675		0.0722	0.2616	0.0424
<i>Rgd1561620</i>	similar to isopentenyl diphosphate delta- isomerase type 2	0.2426		0.1060	0.2593	0.0362
<i>Loc689745</i>	hypothetical protein	0.2261		0.0528	0.2571	0.0281
<i>Loc685856</i>	similar to Protein CXorf48 (Tumor antigen BJ-HCC-20)	0.2414		0.0739	0.2564	0.0484
<i>Rgd1564102</i>	similar to PRAME family member 8	0.1920		0.0634	0.2547	0.0290
<i>Mcpt1</i>	mast cell protease 1	0.1776		0.0509	0.2504	0.0232
<i>Loc689905</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.1895		0.0740	0.2451	0.0450
<i>Loc686738</i>	similar to RIKEN cDNA 4930504O13	0.2507		0.0598	0.2439	0.0083

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc367500</i>	hypothetical protein	0.1859		0.0508	0.2431	0.0407
<i>Loc690626</i>	hypothetical protein	0.1970		0.0679	0.2375	0.0326
<i>Loc680444</i>	similar to Glutaredoxin-1 (Thioltransferase-1) (TTase-1)	0.2625		0.1230	0.2357	0.0446
<i>Tdpoz1</i>	similar to TD and POZ domain containing 1	0.1885		0.0556	0.2349	0.0415
<i>Rgd1559954</i>	hypothetical protein	0.2476		0.1100	0.2349	0.0378
<i>Loc679662</i>	similar to Spetex-2F protein	0.2761		0.0950	0.2343	0.0351
<i>Loc687401</i>	similar to Spetex-2F protein	0.2721		0.1130	0.2308	0.0421
<i>Obp3</i>	major urinary protein 5	0.1737		0.0560	0.2304	0.0170
<i>Loc685886</i>	similar to RIKEN cDNA 5031410I06	0.1987		0.0594	0.2284	0.0250
<i>Rgd1562352</i>	similar to isopentenyl diphosphate delta-isomerase type 2	0.1810		0.0538	0.2279	0.0475
<i>Rgd1561827</i>	similar to Interferon alpha-1 precursor	0.1746		0.0564	0.2264	0.0078
<i>Loc502572</i>	similar to TD and POZ domain containing 1	0.1764		0.0564	0.2214	0.0296
<i>Obp3</i>	similar to alpha-2u globulin PGCL4 isoform 1	0.1758		0.0825	0.2191	0.0186
<i>Obp3</i>	alpha-2u globulin PGCL1	0.1702		0.0685	0.2173	0.0358
<i>Loc690624</i>	hypothetical protein	0.2140		0.0514	0.2129	0.0344
<i>Obp3</i>	similar to alpha2u globulin	0.1597		0.0523	0.2113	0.0256
<i>Rgd1559954</i>	hypothetical protein	0.1794		0.0550	0.1807	0.0146
<i>Rgd1559954</i>	hypothetical protein	0.1940		0.0907	0.1583	0.0168
<i>Loc682932</i>	similar to CG32133-PA	0.2494		0.0619	0.1342	0.0108
Commonly Regulated	<i>Clec2l</i>	hypothetical protein LOC296985	18.7707	0.0137	20.8810	0.0112
	<i>Cnpy3</i>	similar to trinucleotide repeat containing 5	15.1212	0.0458	31.9130	0.0173
	<i>Ids</i>	similar to Iduronate 2-sulfatase precursor (Alpha-L-iduronate sulfate sulfatase) (Idursulfase)	14.6484	0.0080	13.0176	0.0064

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Letmd1</i>	similar to LETM1 domain containing 1 isoform 4	14.5021		0.0360	17.7704	0.0177
<i>Pcdhb5</i>	similar to protocadherin beta 5	13.8409		0.0014	4.1403	0.0368
<i>Loc305633</i>	similar to anthrax toxin receptor 2	13.7291		0.0217	13.7128	0.0214
<i>Rrn3</i>	similar to RRN3 RNA polymerase I transcription factor homolog isoform 1	13.7146		0.0092	10.0719	0.0063
<i>Ank2</i>	similar to ankyrin 2 isoform 1	13.2496		0.0163	6.9842	0.0246
<i>Tfrc</i>	similar to transferrin receptor	12.9817		0.0067	8.9824	0.0062
<i>Rgd1564174</i>	similar to tensin-like SH2 domain containing 1	12.7758		0.0443	9.7414	0.0232
<i>Lrba</i>	similar to LPS-responsive beige-like anchor isoform 1	12.4709		0.0288	11.6739	0.0130
<i>Aer61</i>	glycosyltransferase Aer61	12.0409		0.0116	9.7411	0.0117
<i>Atg16l1</i>	similar to APG16L beta isoform isoform 2	11.9135		0.0301	11.6916	0.0269
<i>Shox2</i>	short stature homeobox 2	11.6180		0.0016	17.5153	0.0000
<i>Tmem129</i>	similar to CG14646-PA	11.3360		0.0416	9.7218	0.0128
<i>Fchsd2</i>	similar to FCH and double SH3 domains 2	10.5988		0.0165	8.5965	0.0193
<i>Ccdc109a</i>	similar to CG18769-PB, isoform B	10.2255		0.0182	7.4838	0.0467
<i>Pcyox1</i>	chloride ion pump-associated 55 kDa protein	10.0140		0.0270	8.8093	0.0232
<i>Loc685637</i>	similar to Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha isoform (PI3-kinase p110 subunit alpha) (PtdIns-3-kinase p110) (PI3K)	9.8573		0.0192	10.8795	0.0115
<i>Rgd1562582</i>	similar to Protein KIAA0406	9.3009		0.0429	8.9395	0.0269
<i>Sv2b</i>	synaptic vesicle glycoprotein 2b	9.2690		0.0178	5.5249	0.0334
<i>Map4</i>	microtubule-associated protein 4	9.1538		0.0217	9.8255	0.0074
<i>Thap6</i>	similar to THAP domain containing 6	9.1252		0.0067	8.3349	0.0051

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1311744</i>	similar to BCSC-1	9.0531		0.0069	4.1101	0.0176
<i>Rgd1561065</i>	similar to PHD finger protein 8 isoform 1	8.9954		0.0207	8.7661	0.0141
<i>Rgd1311429</i>	similar to CG4699-PA, isoform A isoform 2	8.9596		0.0443	6.4898	0.0311
<i>Tmem32</i>	similar to transmembrane protein 32	8.8558		0.0110	5.9858	0.0140
<i>Prkci</i>	similar to Protein kinase C iota type (nPKC-iota) (Atypical protein kinase C-lambda/iota) (aPKC-lambda/iota)	8.7232		0.0153	7.1882	0.0304
<i>Fmn1</i>	similar to Formin-1 isoform IV (Limb deformity protein)	8.4721		0.0057	18.4377	0.0009
<i>Igf2r</i>	insulin-like growth factor 2 receptor	8.3888		0.0248	5.4927	0.0173
<i>Arhgef6</i>	rac/cdc42 guanine nucleotide exchange factor 6	7.9536		0.0062	6.2374	0.0070
<i>Slc9a2</i>	solute carrier family 9, member 2	7.8251		0.0193	5.8692	0.0267
<i>Abi2</i>	similar to Abl interactor 2 (Abelson interactor 2) (Abi-2) (Abl-binding protein 3) (AbIBP3) (Arg-binding protein 1) (ArgBP1) isoform 6	7.6792		0.0246	6.2879	0.0185
<i>Rgd1564214</i>	similar to Zinc finger protein 235 (Zinc finger protein 93) (Zfp-93)	7.6060		0.0049	4.3959	0.0037
<i>Atg16l1</i>	similar to APG16L beta isoform	7.4555		0.0386	5.9735	0.0326
<i>Usp1</i>	similar to ubiquitin specific peptidase like 1	7.2732		0.0316	5.3582	0.0225
<i>Rgd1561065</i>	similar to PHD finger protein 8 isoform 2	7.1713		0.0431	6.4175	0.0109
<i>Abi2</i>	similar to abl interactor 2 isoform 3	7.1235		0.0231	5.5706	0.0172
<i>Abi2</i>	similar to abl interactor 2 isoform 5	7.0478		0.0237	6.1280	0.0185
<i>Slc22a5</i>	solute carrier family 22, member 5	6.8086		0.0308	5.7412	0.0284
<i>Loc678813</i>	limkain b1	6.8000		0.0077	10.1947	0.0033
<i>Nav3</i>	similar to neuron navigator 3	6.7415		0.0113	6.9387	0.0093

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Foxj3</i>	similar to forkhead box J3	6.7129		0.0274	3.8172	0.0239
<i>Net1</i>	neuroepithelial cell transforming gene 1	6.5236		0.0365	6.0102	0.0390
<i>Rnf24</i>	similar to ring finger protein 24	6.4464		0.0215	7.5672	0.0046
<i>Loc684901</i>	similar to zinc finger protein 449	6.3777		0.0094	3.8367	0.0483
<i>Ap1g1</i>	similar to AP-1 complex subunit gamma-1 (Adapter-related protein complex 1 gamma-1 subunit) (Gamma-adaptin) (Adaptor protein complex AP-1 gamma-1 subunit) (Golgi adaptor HA1/AP1 adaptin subunit gamma-1) (Clathrin assembly protein complex 1 gamma-1 ... iso	6.3761		0.0280	5.2127	0.0251
<i>Rgd1307344</i>	similar to ELMO domain containing 2	6.3563		0.0047	4.3199	0.0146
<i>Trak2</i>	trafficking protein, kinesin binding 1	6.2834		0.0222	4.4305	0.0168
<i>Gltd1</i>	hypothetical protein	6.2645		0.0403	8.0593	0.0346
<i>Rgd1560493</i>	similar to Protein ovarian tumor locus	6.2408		0.0160	3.7339	0.0426
<i>Rgd1565967</i>	similar to Rho-GTPase-activating protein 6 (Rho-type GTPase-activating protein RhoGAPX-1)	6.1669		0.0017	2.9554	0.0238
<i>Smad4</i>	MAD homolog 4	6.1634		0.0356	5.6892	0.0209
<i>Osbpl3</i>	similar to Oxysterol-binding protein-related protein 3 (OSBP-related protein 3) (ORP-3)	6.0685		0.0098	2.9076	0.0424
<i>Tshz3</i>	similar to teashirt 3	6.0457		0.0303	4.2505	0.0361
<i>Rrm2b</i>	similar to ribonucleotide reductase M2 B (TP53 inducible)	6.0227		0.0456	4.9334	0.0418
<i>Abi2</i>	similar to abl interactor 2 isoform 1	5.9938		0.0305	5.1468	0.0251
<i>Smg7</i>	similar to SMG-7 homolog	5.9928		0.0268	5.1268	0.0065
<i>Loc367289</i>	similar to CG4699-PA, isoform A isoform 2	5.7710		0.0184	9.2595	0.0117

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Atp7a</i>	ATPase, Cu ⁺⁺ transporting, alpha polypeptide	5.7261		0.0179	5.4979	0.0495
<i>Loc498752</i>	dynactin subunit p62	5.7068		0.0049	4.9452	0.0080
<i>Arhgap29</i>	PTPL1-associated RhoGAP 1	5.6314		0.0227	3.8785	0.0306
<i>Myst2</i>	MYST histone acetyltransferase 2	5.6294		0.0442	4.5783	0.0246
<i>Pan3</i>	similar to PABP-dependent poly(A) nuclease 3	5.5867		0.0198	4.7510	0.0281
<i>Ddhd2</i>	similar to DDHD domain containing 2	5.5477		0.0144	4.4989	0.0209
<i>Diaph2</i>	similar to diaphanous homolog 2	5.5122		0.0317	8.4921	0.0264
<i>Loc680039</i>	hypothetical protein isoform 1	5.3861		0.0449	3.8664	0.0404
<i>Cpeb2</i>	similar to cytoplasmic polyadenylation element binding protein 2 isoform A	5.3732		0.0080	7.1476	0.0092
<i>Cdc7</i>	similar to Cell division cycle 7-related protein kinase (CDC7-related kinase) (muCdc7)	5.3504		0.0414	5.6675	0.0207
<i>Prdm4</i>	PR domain containing 4	5.2904		0.0282	4.4782	0.0192
<i>Usp6nl</i>	similar to USP6 N-terminal-like protein	5.2842		0.0449	3.2384	0.0303
<i>Pcdhb15</i>	similar to protocadherin beta 15	5.2425		0.0323	4.6887	0.0180
<i>Dhx35</i>	similar to Probable ATP-dependent RNA helicase DHX35 (DEAH box protein 35)	5.2156		0.0421	4.9085	0.0418
<i>Nat15</i>	hypothetical protein LOC363545	5.2054		0.0497	6.6537	0.0318
<i>Tk2</i>	similar to thymidine kinase 2, mitochondrial	5.1661		0.0212	5.5056	0.0097
<i>Abi2</i>	abl-interactor 2	5.1630		0.0050	3.1796	0.0491

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1565692</i>	similar to Histone-lysine N-methyltransferase, H3 lysine-9 specific 1 (Histone H3-K9 methyltransferase 1) (H3-K9-HMTase 1) (Suppressor of variegation 3-9 homolog 1) (Su(var)3-9 homolog 1) (Position-effect variegation 3-9 homolog)	5.1230		0.0417	4.4066	0.0323
<i>Fam70a</i>	hypothetical protein LOC313453	5.1046		0.0188	4.2716	0.0404
<i>Arhgap10</i>	similar to Rho GTPase activating protein 10 isoform 3	5.0252		0.0329	4.0492	0.0250
<i>Loc294154</i>	hypothetical protein LOC294154	4.9990		0.0138	5.0992	0.0127
<i>Plekhb2</i>	similar to pleckstrin homology domain containing, family B (evectins) member 2	4.9962		0.0420	4.4446	0.0480
<i>Col12a1</i>	similar to procollagen, type XII, alpha 1	4.9376		0.0197	4.4624	0.0085
<i>Loc681709</i>	hypothetical protein	4.9184		0.0235	18.4966	0.0058
<i>Mlh3</i>	similar to DNA mismatch repair protein Mlh3 (MutL protein homolog 3) isoform 2	4.8864		0.0188	4.2652	0.0288
<i>Rims1</i>	regulating synaptic membrane exocytosis 1	4.8845		0.0416	3.4776	0.0462
<i>Hs6st2</i>	similar to Heparan-sulfate 6-O-sulfotransferase 2 (HS6ST-2) isoform 2	4.7912		0.0212	2.8383	0.0360
#N/A	similar to zinc finger protein 7	4.7632		0.0287	3.8066	0.0272
<i>Znf536</i>	similar to zinc finger protein 536	4.6729		0.0492	4.3711	0.0408
<i>Zfp180</i>	Cys2/His2 zinc finger protein (rKr1)	4.6666		0.0377	3.1229	0.0460
<i>Pola1</i>	similar to DNA polymerase alpha catalytic subunit	4.6591		0.0119	3.6202	0.0198
<i>Rgd1309985</i>	similar to CG15133-PA	4.6516		0.0088	6.6559	0.0034
<i>Tbc1d1</i>	similar to TBC1 domain family member 1	4.6382		0.0343	3.9795	0.0365
<i>Lphn1</i>	latrophilin 1	4.6372		0.0266	3.4834	0.0262
<i>Dgkg</i>	diacylglycerol kinase, gamma	4.5947		0.0107	4.0075	0.0257

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rasgrp3</i>	similar to RAS, guanyl releasing protein 3	4.5875		0.0256	4.0210	0.0330
<i>Chaf1b</i>	chromatin assembly factor 1, subunit B (p60)	4.5697		0.0266	4.2138	0.0145
<i>Smpx</i>	small muscle protein, X-linked	4.5385		0.0240	7.3054	0.0072
<i>Rgd1566363</i>	similar to DNA segment on chromosome X and Y (unique) 155 expressed sequence	4.4967		0.0119	2.6377	0.0244
<i>Mreg</i>	similar to whn-dependent transcript 2	4.4778		0.0063	3.8898	0.0039
<i>Lppr2</i>	plasticity related protein 4	4.4452		0.0401	8.1680	0.0217
<i>Mlh3</i>	similar to mutL homolog 3 isoform 1	4.4218		0.0065	3.6081	0.0083
<i>Nnat</i>	neuronatin isoform alpha	4.4076		0.0425	5.2292	0.0383
<i>Loc684310</i>	similar to O-acetyltransferase	4.3916		0.0095	2.1847	0.0323
<i>Ints5</i>	similar to integrator complex subunit 5	4.3809		0.0456	4.8637	0.0307
<i>Rgd1305938</i>	hypothetical protein	4.3677		0.0114	4.2582	0.0083
<i>Narfl</i>	nuclear prelamin A recognition factor-like	4.3581		0.0305	4.8186	0.0196
<i>Mynn</i>	myoneurin	4.3549		0.0136	2.5799	0.0328
<i>Rgd1563065</i>	similar to T05C3.2	4.3478		0.0087	3.0766	0.0402
<i>Hecw2</i>	similar to HECT, C2 and WW domain containing E3 ubiquitin protein ligase 2 isoform 1	4.3132		0.0220	2.5075	0.0480
<i>Loc679644</i>	similar to Zinc finger protein Rlf (Rearranged L-myc fusion gene protein) (Zn-15 related protein)	4.3065		0.0237	4.7797	0.0272
<i>Sil1</i>	Sil1 protein	4.2851		0.0332	6.8029	0.0239
<i>Fmr1</i>	fragile X mental retardation syndrome 1 homolog	4.2720		0.0252	2.7361	0.0388
<i>Lmbrd2</i>	similar to LMBR1 domain containing 2	4.2707		0.0108	4.5244	0.0189
<i>Trpm6</i>	similar to transient receptor potential cation channel, subfamily M, member 6	4.2165		0.0043	4.7677	0.0032

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Elavl2</i>	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 2 (Hu antigen B)	4.2085	0.0123	3.0074	0.0464
<i>Phc3</i>	similar to polyhomeotic-like 3 isoform 1	4.2032	0.0358	4.4214	0.0109
<i>Arhgap10</i>	similar to Rho GTPase activating protein 10 isoform 1	4.1915	0.0407	3.8653	0.0261
<i>Hectd2</i>	similar to HECT domain containing 2	4.1876	0.0110	2.6125	0.0330
<i>Loc300314</i>	similar to Protein KIAA0196	4.1731	0.0249	3.8597	0.0104
<i>Fam35a</i>	hypothetical protein LOC364514	4.1683	0.0112	3.8256	0.0076
<i>Arhgef7</i>	Rho guanine nucleotide exchange factor 7	4.1622	0.0089	4.4743	0.0025
<i>Glce</i>	similar to D-glucuronyl C5-epimerase	4.1616	0.0083	2.7606	0.0329
<i>Rgd1563669</i>	similar to mediator of RNA polymerase II transcription, subunit 9 homolog	4.1083	0.0273	3.9324	0.0358
<i>Camsap1</i>	similar to calmodulin regulated spectrin-associated protein 1	4.1071	0.0359	2.9020	0.0223
<i>Ppp2r4</i>	similar to Serine/threonine-protein phosphatase 2A regulatory subunit B (PP2A, subunit B, PR53 isoform) (Phosphotyrosyl phosphatase activator) (PTPA)	4.1018	0.0342	3.3689	0.0269
<i>Fchsd2</i>	similar to FCH and double SH3 domains 2	4.0890	0.0382	3.7905	0.0401
<i>Rgd1307161</i>	hypothetical protein LOC305031	4.0692	0.0262	3.0130	0.0358
<i>Kidins220</i>	kinase D-interacting substrate 220	4.0676	0.0269	3.3313	0.0218
<i>Zdhhc17</i>	membrane-associated DHHC17 zinc finger protein	4.0621	0.0309	2.9859	0.0460
<i>Loc683071</i>	similar to La-related protein 4 (La ribonucleoprotein domain family member 4)	3.9953	0.0014	2.6351	0.0005

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gulp1</i>	GULP, engulfment adaptor PTB domain containing 1	3.9872		0.0395	3.0691	0.0392
<i>Drp2</i>	dystrophin-related protein 2	3.9028		0.0293	3.0094	0.0388
<i>Loc679869</i>	similar to transcription factor 7-like 2, T-cell specific, HMG-box isoform 4	3.9024		0.0346	3.7962	0.0080
<i>Loc686547</i>	similar to TBC1 domain family member 4 (Akt substrate of 160 kDa) (AS160) isoform 1	3.8835		0.0266	3.0977	0.0442
<i>Gabra3</i>	gamma-aminobutyric acid receptor, subunit alpha 3	3.8704		0.0129	3.5120	0.0152
<i>Mfsd6</i>	similar to R13A5.9	3.8486		0.0323	2.6906	0.0467
<i>Pde4d</i>	phosphodiesterase 4D	3.8421		0.0163	4.9086	0.0079
<i>Casp2</i>	caspase 2	3.8342		0.0155	3.1488	0.0337
<i>Slc29a1</i>	equilibrative nucleoside transporter 1	3.8199		0.0097	2.7649	0.0095
<i>Rgd1306939</i>	hypothetical protein LOC306934	3.8041		0.0200	3.1493	0.0343
<i>Tctn3</i>	similar to tectonic 3	3.7991		0.0282	4.2541	0.0147
<i>Gopc</i>	similar to golgi associated PDZ and coiled-coil motif containing	3.7852		0.0177	2.9088	0.0312
<i>Helb</i>	similar to helicase (DNA) B	3.7827		0.0299	3.5326	0.0226
<i>Smek1</i>	similar to falafel CG9351-PA, isoform A isoform 4	3.7641		0.0175	7.6905	0.0019
<i>Fam126b</i>	hypothetical protein LOC316415	3.7595		0.0156	3.7224	0.0178
<i>Slc25a13</i>	similar to Calcium-binding mitochondrial carrier protein Aralar2 (Mitochondrial aspartate glutamate carrier 2) (Solute carrier family 25 member 13) (Citrin)	3.7400		0.0485	3.7323	0.0466
<i>Vom2r44</i>	similar to tissue-type vomeronasal neurons putative pheromone receptor V2R2	3.7104		0.0197	4.5743	0.0026

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Acsl1</i>	acyl-CoA synthetase long-chain family member 1	3.6983		0.0220	2.7967	0.0265
<i>Coro2a</i>	coronin, actin binding protein 2A	3.6944		0.0358	4.3348	0.0325
<i>Yeats2</i>	similar to YEATS domain containing 2	3.6829		0.0314	2.5664	0.0472
<i>Psen2</i>	presenilin 2	3.6764		0.0322	3.8541	0.0130
<i>Plxna4a</i>	similar to plexin A4 isoform 1	3.6606		0.0419	3.7280	0.0112
<i>Acsl4</i>	acyl-CoA synthetase long-chain family member 4	3.6127		0.0136	2.9424	0.0461
<i>Rgd1561038</i>	similar to NEDD4-like ubiquitin-protein ligase 1	3.5789		0.0144	2.3083	0.0499
<i>Armcx6</i>	armadillo repeat containing, X-linked 6	3.5759		0.0318	3.6985	0.0217
<i>Dcun1d1</i>	similar to RP42 homolog	3.5743		0.0192	3.0525	0.0300
<i>V1rg10</i>	vomer nasal 1 receptor, g10	3.5691		0.0175	3.2152	0.0046
<i>Slc38a6</i>	solute carrier family 38, member 6	3.5665		0.0019	2.4358	0.0054
<i>Mettl14</i>	similar to CG7818-PA	3.5220		0.0213	3.2720	0.0173
<i>Atrx</i>	similar to Transcriptional regulator ATRX (ATP-dependent helicase ATRX) (X-linked nuclear protein) (Heterochromatin protein 2) (HP1 alpha-interacting protein) (HP1-BP38 protein)	3.5201		0.0199	4.5229	0.0146
<i>Enth</i>	similar to Epsin-4 (Epsin-related protein) (EpsinR) (Enthoprotin) isoform 6	3.5077		0.0239	2.8013	0.0184
<i>Steap2</i>	similar to Six-transmembrane epithelial antigen of prostate 2	3.4837		0.0435	3.3163	0.0237
<i>Pmaip1</i>	phorbol-12-myristate-13-acetate-induced protein 1	3.4663		0.0177	2.4574	0.0373
<i>Tmem123</i>	pro-oncosis receptor inducing membrane injury	3.4379		0.0081	3.6760	0.0115

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Leprel1</i>	leprecan-like 1	3.4187		0.0019	2.2847	0.0082
<i>Dna2</i>	similar to DNA2 DNA replication helicase 2-like	3.3951		0.0104	3.4654	0.0164
<i>Rhpn2</i>	similar to Rhophilin-2 (GTP-Rho-binding protein 2)	3.3863		0.0469	2.8386	0.0275
<i>Hmgcl</i>	3-hydroxy-3-methylglutaryl-Coenzyme A lyase	3.3725		0.0330	2.6979	0.0269
<i>Erlin1</i>	similar to SPFH domain protein 1 precursor (KE04 protein homolog)	3.3685		0.0177	3.3279	0.0192
<i>Senp1</i>	similar to SUMO1/sentrin specific protease 1	3.3631		0.0194	2.6256	0.0283
<i>Dnahc6</i>	similar to Dynein heavy chain at 16F CG7092-PA	3.3557		0.0053	4.2772	0.0003
<i>Diaph2</i>	similar to diaphanous homolog 2	3.3534		0.0202	2.9786	0.0212
<i>Wdr7</i>	TGF-beta resistance-associated protein	3.3484		0.0133	2.6865	0.0265
<i>Rnf219</i>	similar to Protein C13orf7 homolog	3.3315		0.0040	2.5105	0.0064
<i>Atr</i>	similar to 5-3 exoribonuclease 1	3.3260		0.0487	3.4563	0.0246
<i>Kcna4</i>	potassium voltage-gated channel, shaker-related subfamily, member 4	3.3053		0.0014	2.1786	0.0153
<i>Angel1</i>	similar to angel homolog 1	3.3030		0.0031	2.0712	0.0278
<i>Enth</i>	similar to Epsin-4 (Epsin-related protein) (EpsinR) (Enthoprotin) isoform 5	3.3028		0.0345	2.6443	0.0254
<i>Aldh3a2</i>	aldehyde dehydrogenase family 3, subfamily A2	3.2827		0.0331	2.8205	0.0161
<i>Rrn3</i>	similar to RRN3 RNA polymerase I transcription factor homolog isoform 1	3.2814		0.0174	2.4700	0.0298
<i>Rgd1559961</i>	similar to myosin head domain containing 1 isoform 2	3.2813		0.0383	2.8878	0.0180

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562997</i>	similar to Transcription initiation factor TFIID 105 kDa subunit (TAFII-105) (TAFII105)	3.2773		0.0094	3.8761	0.0125
<i>Gtf2a1</i>	general transcription factor Ila precursor	3.2727		0.0089	5.2504	0.0057
<i>Loc499980</i>	hypothetical protein LOC499980	3.2638		0.0123	1.9641	0.0223
<i>Ntng1</i>	similar to Netrin G1 precursor (Laminct-1)	3.2466		0.0023	2.7217	0.0030
<i>Pde7b</i>	phosphodiesterase 7B	3.2305		0.0131	3.1018	0.0178
<i>Adamts19</i>	similar to a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 19	3.2258		0.0037	2.3829	0.0076
<i>Iqgap1</i>	similar to Ras GTPase-activating-like protein IQGAP1	3.2217		0.0490	3.8482	0.0342
<i>Aldh1a7</i>	aldehyde dehydrogenase family 1, subfamily A7	3.2143		0.0317	3.4510	0.0313
<i>Osbp</i>	hypothetical protein	3.1924		0.0211	2.6366	0.0398
<i>Txndc13</i>	similar to Thioredoxin domain-containing protein 13 precursor	3.1535		0.0077	3.0364	0.0163
<i>Dennd2a</i>	similar to suppression of tumorigenicity 5	3.1424		0.0433	2.5172	0.0350
<i>Fam178a</i>	similar to Protein C10orf6 homolog	3.1192		0.0294	3.1883	0.0451
<i>Gpr143</i>	similar to G-protein coupled receptor 143 (Ocular albinism type 1 protein homolog) (MOA1)	3.1184		0.0351	2.3719	0.0433
<i>Lhfp13</i>	similar to lipoma HMGIC fusion partner-like 3	3.0939		0.0230	2.1974	0.0451
<i>Htr4</i>	serotonin 5-HT4 receptor	3.0932		0.0375	3.2688	0.0194

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Usp40</i>	similar to Ubiquitin carboxyl-terminal hydrolase 40 (Ubiquitin thiolesterase 40) (Ubiquitin-specific processing protease 40) (Deubiquitinating enzyme 40)	3.0902	0.0267	3.1322	0.0163
<i>Rgd621098</i>	lin-10 protein homolog	3.0718	0.0114	2.5327	0.0110
<i>Rgd1560932</i>	similar to HEAT-like repeat-containing protein	3.0679	0.0440	2.3979	0.0329
<i>Rims2</i>	regulating synaptic membrane exocytosis 2 isoform 1	3.0669	0.0201	2.8094	0.0193
<i>Slc35e3</i>	similar to solute carrier family 35, member E3	3.0662	0.0267	2.6486	0.0338
<i>Pold3</i>	polymerase (DNA-directed), delta 3, accessory subunit	3.0598	0.0069	2.9573	0.0092
<i>Sfrs4</i>	similar to Splicing factor, arginine/serine-rich 4 isoform 1	3.0582	0.0458	4.0830	0.0183
<i>Dusp16</i>	similar to Dual specificity protein phosphatase 16 (Mitogen-activated protein kinase phosphatase 7) (MAP kinase phosphatase 7) (MKP-7)	3.0433	0.0492	2.8593	0.0274
<i>Poln</i>	similar to DNA polymerase N	3.0357	0.0160	3.0606	0.0097
<i>Kitlg</i>	kit ligand	3.0294	0.0147	3.5405	0.0253
<i>Loc688165</i>	similar to mitochondrial ribosomal protein L10	3.0103	0.0409	3.6910	0.0321
<i>Lrp12</i>	similar to low density lipoprotein-related protein 12	3.0047	0.0135	2.4535	0.0383
<i>Loc685152</i>	similar to Nice-4 protein homolog isoform 1	3.0046	0.0148	2.3706	0.0100
<i>Cml2</i>	similar to Camello-like 2	3.0037	0.0331	2.3607	0.0406

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Pip4k2c</i>	phosphatidylinositol-4-phosphate 5-kinase, type II, gamma	2.9732		0.0472	2.8998	0.0459
<i>Exoc4</i>	similar to Exocyst complex component 4 (Exocyst complex component Sec8) (rSec8) isoform 1	2.9711		0.0222	2.6033	0.0254
<i>Zfp398</i>	similar to zinc finger protein 398 isoform 1	2.9622		0.0165	2.8660	0.0221
<i>Grid2ip</i>	similar to glutamate receptor, ionotropic, delta 2 (Grid2) interacting protein 1	2.9609		0.0110	3.0671	0.0009
<i>Trib2</i>	similar to tribbles homolog 2	2.9472		0.0232	2.3158	0.0283
<i>Traf6</i>	similar to Tnf receptor-associated factor 6	2.9446		0.0165	1.6520	0.0432
<i>Il6st</i>	interleukin 6 signal transducer	2.9414		0.0490	2.2750	0.0443
<i>Ugcg1</i>	UDP-glucose ceramide glucosyltransferase-like 1	2.9324		0.0473	2.8757	0.0319
<i>Loc679383</i>	similar to DNA segment, Chr 5, ERATO Doi 135, expressed	2.9308		0.0171	2.3479	0.0118
<i>Ankfy1</i>	similar to Ankyrin repeat and FYVE domain protein 1 (Ankyrin repeats hooked to a zinc finger motif)	2.9303		0.0168	2.2771	0.0451
<i>Rgd1308226</i>	similar to leucine-rich B7 protein	2.9244		0.0328	2.9377	0.0058
<i>Zfp174</i>	similar to Zinc finger protein 174 (AW-1) (Zinc finger and SCAN domain-containing protein 8)	2.9229		0.0362	2.6585	0.0176
<i>Prg4</i>	similar to proteoglycan 4	2.8905		0.0077	2.9461	0.0024
<i>Haus2</i>	similar to Centrosomal protein of 27 kDa (Cep27 protein)	2.8765		0.0190	3.2520	0.0068
<i>Dmc1</i>	similar to Meiotic recombination protein DMC1/LIM15 homolog	2.8758		0.0370	2.8501	0.0217

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tex2</i>	similar to testis expressed gene 2 isoform 2	2.8713		0.0288	3.1301	0.0141
<i>Prkaa2</i>	AMP-activated protein kinase alpha 2 catalytic subunit	2.8711		0.0333	3.0437	0.0091
<i>Nupl2</i>	similar to nucleoporin like 2	2.8697		0.0280	2.9162	0.0157
<i>Slc1a3</i>	solute carrier family 1 (glial high affinity glutamate transporter), member 3	2.8572		0.0217	2.4591	0.0391
<i>Cpne3</i>	similar to copine III	2.8407		0.0340	3.4760	0.0089
<i>Prkg2</i>	protein kinase, cGMP-dependent, type II	2.8356		0.0109	2.0507	0.0183
<i>Naf1</i>	hypothetical protein LOC306387	2.8337		0.0443	3.7127	0.0114
<i>Atl3</i>	atlastin-3-like	2.8329		0.0489	3.2293	0.0168
<i>Rgd1564228</i>	similar to alpha-N-acetylglucosaminidase	2.8296		0.0270	2.0755	0.0458
<i>Ash1l</i>	similar to absent, small, or homeotic discs 1	2.8202		0.0281	4.9874	0.0105
<i>Grid2ip</i>	similar to glutamate receptor, ionotropic, delta 2 (Grid2) interacting protein 1	2.8173		0.0195	3.1356	0.0025
<i>Dnah3</i>	similar to dynein, axonemal, heavy polypeptide 3	2.8131		0.0128	2.5271	0.0012
<i>Sfrs4</i>	similar to Splicing factor, arginine/serine-rich 4 isoform 9	2.7944		0.0453	3.8451	0.0195
<i>Loc690287</i>	similar to ubiquitin specific protease 12	2.7918		0.0179	2.2733	0.0260
<i>Rgd1306286</i>	similar to CG14299-PA, isoform A	2.7910		0.0378	2.1573	0.0426
<i>Rgd1564870</i>	hypothetical protein	2.7788		0.0480	2.2610	0.0365
<i>Il16</i>	similar to interleukin 16 isoform 1	2.7591		0.0198	2.4318	0.0089
<i>Prmt7</i>	hypothetical protein LOC361402	2.7567		0.0146	2.1525	0.0208
<i>Zfp354c</i>	AJ18 protein	2.7516		0.0060	2.2774	0.0226
<i>Naaladl1</i>	N-acetylated alpha-linked acidic dipeptidase-like	2.7471		0.0392	2.4966	0.0422
<i>Loc689986</i>	hypothetical protein	2.7376		0.0495	2.0812	0.0408

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1304879</i>	hypothetical protein LOC312301	2.7361		0.0377	3.0428	0.0347
<i>Slc25a12</i>	similar to solute carrier family 25 (mitochondrial carrier, Aralar), member 12	2.7349		0.0330	2.3407	0.0344
<i>Caprin1</i>	GPI-anchored membrane protein 1	2.7258		0.0204	2.4481	0.0275
<i>Prcp</i>	similar to angiotensinase C like	2.7166		0.0390	2.2374	0.0388
<i>Loc316460</i>	similar to CG18437-PA	2.7041		0.0112	2.5052	0.0311
<i>Polr1a</i>	RNA polymerase 1-4	2.7034		0.0470	2.0210	0.0486
<i>Dpy19l1</i>	similar to dpy-19-like 1, like	2.6736		0.0179	2.6842	0.0226
<i>Rgd1559904</i>	similar to virilizer CG3496-PA	2.6726		0.0024	2.1840	0.0040
<i>Pat1</i>	similar to yeast PAT1(protein associated with topo II) Related family member (patr- 1)	2.6709		0.0389	2.3305	0.0495
<i>Tpcn1</i>	two pore channel 1	2.6593		0.0241	2.1614	0.0125
<i>Raf1</i>	v-raf-1 murine leukemia viral oncogene homolog 1	2.6517		0.0453	2.0897	0.0401
<i>Txnrd3</i>	similar to thioredoxin reductase 3	2.6509		0.0280	2.2615	0.0397
<i>Ptgs2</i>	prostaglandin-endoperoxide synthase 2	2.6495		0.0139	2.0949	0.0497
<i>Btbd7</i>	similar to BTB (POZ) domain containing 7 isoform 1	2.6465		0.0340	3.6182	0.0125
<i>Narf</i>	nuclear prelamin A recognition factor	2.6399		0.0383	2.4319	0.0097
<i>Atp9b</i>	similar to ATPas, class II, type 9B	2.6379		0.0496	1.9657	0.0464
<i>Fam81b</i>	similar to Myosin-4 (Myosin heavy chain B) (MHC B) (Uncoordinated protein 54)	2.6331		0.0043	1.8842	0.0167
<i>Loc679869</i>	similar to transcription factor 7-like 2 (T- cell specific, HMG-box) isoform 8	2.6279		0.0350	2.1781	0.0148
<i>Mllt10</i>	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 10 (predicted)	2.6214		0.0300	1.9672	0.0424

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Scn3b</i>	voltage-gated sodium channel beta-3 subunit	2.6197		0.0344	2.5913	0.0116
<i>Ash1l</i>	similar to absent, small, or homeotic discs 1	2.6073		0.0192	4.6285	0.0192
<i>Kif18a</i>	similar to kinesin family member 18A	2.5985		0.0211	1.5321	0.0415
<i>Cntnap4</i>	similar to contactin associated protein 4 isoform 1	2.5937		0.0193	2.2078	0.0365
<i>Sfrs4</i>	similar to Splicing factor, arginine/serine-rich 4 isoform 3	2.5747		0.0498	2.8204	0.0174
<i>Aqr</i>	similar to zinc finger protein 239 (predicted)	2.5611		0.0102	2.3124	0.0398
<i>Rgd1304728</i>	hypothetical protein	2.5569		0.0107	1.6646	0.0389
<i>Tmem169</i>	similar to CG4596-PA	2.5551		0.0055	1.9387	0.0488
<i>Rgp1</i>	similar to Protein KIAA0258	2.5537		0.0092	2.2179	0.0058
<i>Gpr137c</i>	similar to transmembrane 7 superfamily member 1	2.5525		0.0245	2.2851	0.0187
<i>Ibtk</i>	similar to inhibitor of Brutons tyrosine kinase	2.5512		0.0261	1.9497	0.0409
<i>Asph</i>	aspartate-beta-hydroxylase	2.5504		0.0023	1.9200	0.0258
<i>Fgf1</i>	fibroblast growth factor 1	2.5315		0.0305	2.2657	0.0103
<i>Loc687233</i>	similar to amphiphysin 1	2.5167		0.0198	2.6710	0.0071
<i>Ugcg</i>	UDP-glucose ceramide glucosyltransferase	2.5111		0.0241	2.4712	0.0226
<i>Larp5</i>	similar to La ribonucleoprotein domain family, member 5	2.4897		0.0205	5.3575	0.0051
<i>Loc690752</i>	similar to mediator of RNA polymerase II transcription, subunit 12 homolog (S. cerevisiae)-like	2.4849		0.0218	2.7072	0.0468

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1306502</i>	similar to Misexpression suppressor of ras 6 CG6818-PA	2.4845		0.0491	2.8327	0.0132
<i>Lycat</i>	similar to lysocardiolipin acyltransferase isoform 1	2.4673		0.0266	2.1201	0.0317
<i>Gnaq</i>	guanine nucleotide binding protein, alpha q polypeptide	2.4654		0.0279	2.9174	0.0258
<i>Rbbp5</i>	similar to retinoblastoma binding protein 5	2.4524		0.0325	2.1387	0.0258
<i>Nnat</i>	neuronatin isoform beta	2.4409		0.0173	1.9626	0.0325
<i>Lipa</i>	lipase A, lysosomal acid	2.4381		0.0057	1.9081	0.0209
<i>Loc690217</i>	hypothetical protein	2.4355		0.0203	2.4667	0.0112
<i>Rgd1305314</i>	hypothetical protein LOC309478	2.4332		0.0398	2.5710	0.0374
<i>Znf597</i>	zinc finger protein HIT-4	2.4276		0.0096	2.8922	0.0290
<i>Vcl</i>	similar to Vinculin (Metavinculin)	2.4250		0.0349	1.8831	0.0225
<i>Loc678700</i>	hypothetical protein	2.4233		0.0025	2.5338	0.0016
<i>Nfe2l3</i>	similar to Nuclear factor erythroid 2- related factor 3 (NF-E2-related factor 3) (NFE2-related factor 3) (Nuclear factor, erythroid derived 2, like 3)	2.4212		0.0035	2.3525	0.0201
<i>Ap4m1</i>	adaptor-related protein complex AP-4, mu 1	2.4089		0.0202	2.0401	0.0439
<i>Rgd1561503</i>	hypothetical protein	2.4075		0.0488	2.3536	0.0108
<i>Hrh1</i>	histamine receptor H 1	2.3961		0.0155	1.9708	0.0340
<i>Rassf6</i>	hypothetical protein LOC305251	2.3959		0.0009	2.1600	0.0037
<i>Vapb</i>	VAMP-associated protein B	2.3835		0.0327	2.3062	0.0224
<i>Gdap1</i>	similar to Ganglioside-induced differentiation-associated protein 1 (GDAP1)	2.3816		0.0251	2.1737	0.0356

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Fam184b</i>	similar to Temporarily Assigned Gene name family member (tag-278)	2.3802		0.0049	2.1401	0.0450
<i>Eps8</i>	similar to epidermal growth factor receptor pathway substrate 8	2.3774		0.0169	2.4462	0.0188
<i>Urb1</i>	similar to Nucleolar preribosomal-associated protein 1	2.3723		0.0280	2.4416	0.0247
<i>Rgd1565309</i>	hypothetical protein	2.3631		0.0231	2.0450	0.0446
<i>Cugbp1</i>	CUG triplet repeat, RNA binding protein 1	2.3443		0.0425	2.2407	0.0409
<i>Kpna6</i>	karyopherin alpha 6	2.3413		0.0232	3.3820	0.0043
<i>Loc686123</i>	similar to leucine rich repeat and coiled-coil domain containing 1	2.3405		0.0152	2.2590	0.0188
<i>Nbr1</i>	neighbor of Brca1 gene 1	2.3355		0.0400	2.0683	0.0483
#N/A	similar to zinc finger protein 709	2.3338		0.0217	3.2488	0.0072
<i>Rgd1309139</i>	similar to CG5435-PA	2.3301		0.0121	1.8947	0.0297
<i>Golga7b</i>	similar to golgi autoantigen, golgin subfamily a, 7	2.3290		0.0194	2.8499	0.0047
<i>Pde4b</i>	phosphodiesterase 4B	2.3287		0.0161	2.0061	0.0494
<i>Alpk2</i>	similar to heart alpha-kinase	2.3198		0.0114	2.4119	0.0080
<i>Rgd1310358</i>	similar to RPB5-mediating protein isoform a	2.3190		0.0110	1.6632	0.0283
<i>Scn3a</i>	sodium channel, voltage-gated, type III, alpha polypeptide	2.2975		0.0323	1.9622	0.0424
<i>Klhl12</i>	kelch-like 12	2.2951		0.0127	1.9670	0.0262
<i>Slc47a2</i>	hypothetical protein	2.2942		0.0384	1.9698	0.0265
<i>Pde10a</i>	phosphodiesterase 10A	2.2846		0.0463	3.1162	0.0204

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		Fold Change	p-Value	Fold Change	p-Value
<i>Ripk1</i>	similar to Receptor-interacting serine/threonine-protein kinase 2 (Serine/threonine-protein kinase RIP) (Cell death protein RIP) (Receptor-interacting protein)	2.2832	0.0280	3.5647	0.0161
<i>Opalin</i>	transmembrane protein 10	2.2791	0.0255	2.0124	0.0097
<i>Galr2</i>	galanin receptor 2	2.2790	0.0188	2.2034	0.0333
<i>Rage</i>	renal tumor antigen	2.2768	0.0295	2.4216	0.0114
<i>Ndufaf1</i>	similar to Complex I intermediate-associated protein 30, mitochondrial precursor	2.2674	0.0089	2.2633	0.0404
<i>Casp3</i>	caspase 3	2.2583	0.0481	2.3899	0.0294
<i>Dpy19l3</i>	similar to dpy-19-like 3	2.2569	0.0388	2.9107	0.0304
<i>Loc684217</i>	hypothetical protein	2.2498	0.0271	1.8679	0.0414
<i>Rgd1359452</i>	hypothetical protein LOC296118	2.2481	0.0449	1.7829	0.0462
<i>Mns1</i>	meiosis-specific nuclear structural protein 1	2.2452	0.0389	3.0159	0.0003
<i>Itpr1</i>	inositol 1,4,5-triphosphate receptor 1	2.2407	0.0161	2.0253	0.0317
<i>Fgf5</i>	fibroblast growth factor 5	2.2317	0.0053	2.1827	0.0058
<i>Tapt1</i>	similar to CG7218-PA	2.2291	0.0139	2.4557	0.0446
<i>Slc39a9</i>	solute carrier family 39 (zinc transporter), member 9	2.2264	0.0240	1.8840	0.0429
<i>Rgd1305311</i>	similar to IQ motif containing with AAA domain	2.2242	0.0258	2.4819	0.0147
<i>Hsd1l</i>	hydroxysteroid dehydrogenase like 1	2.2187	0.0312	1.9951	0.0493
<i>Pcyt1b</i>	phosphate cytidyltransferase 1, choline, beta isoform	2.2121	0.0245	1.9005	0.0332
<i>Pqhc2</i>	similar to PQ loop repeat containing 2	2.2114	0.0156	1.8980	0.0281

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Socs2</i>	suppressor of cytokine signaling 2	2.2114		0.0150	2.7956	0.0086
<i>Rgd1307396</i>	hypothetical protein	2.2113		0.0301	2.0682	0.0182
<i>Rgd1566325</i>	similar to zinc finger protein 455	2.1948		0.0155	1.6516	0.0189
<i>Fam81b</i>	similar to Myosin-4 (Myosin heavy chain B) (MHC B) (Uncoordinated protein 54)	2.1942		0.0440	2.0795	0.0226
<i>Rgd1560775</i>	hypothetical protein	2.1904		0.0346	2.5720	0.0388
<i>Mansc1</i>	similar to MANSC domain containing 1	2.1870		0.0312	1.9328	0.0107
<i>Ermp1</i>	putative aminopeptidase Fxna	2.1834		0.0235	1.5915	0.0492
<i>Cep350</i>	similar to centrosome-associated protein 350	2.1617		0.0358	5.8550	0.0148
<i>Usp46</i>	similar to ubiquitin specific protease 46 isoform 2	2.1541		0.0312	1.8752	0.0375
<i>Dhx36</i>	similar to DEAH (Asp-Glu-Ala-His) box polypeptide 36	2.1479		0.0465	3.7707	0.0031
<i>Loc680345</i>	similar to Disks large homolog 1 (Synapse-associated protein 97) (SAP-97)	2.1415		0.0323	2.5782	0.0110
<i>Gstm3</i>	hypothetical protein LOC499689	2.1328		0.0494	2.2994	0.0116
<i>Tmc5</i>	transmembrane channel-like gene family 5	2.1322		0.0094	1.5381	0.0306
<i>Ints9</i>	similar to cDNA sequence BC028953	2.1246		0.0286	1.8242	0.0191
<i>Tekt2</i>	tektin 2	2.1121		0.0369	2.6604	0.0033
<i>Caprin1</i>	GPI-anchored membrane protein 1	2.1095		0.0218	1.9779	0.0274
<i>Tmem175</i>	hypothetical protein LOC305623	2.1083		0.0462	2.2276	0.0299
<i>Map3k2</i>	similar to Mitogen-activated protein kinase kinase kinase 2 (MAPK/ERK kinase kinase 2) (MEK kinase 2) (MEKK 2)	2.1058		0.0413	1.9470	0.0257
<i>Usp29</i>	similar to ubiquitin specific protease 29	2.1003		0.0117	1.5222	0.0357
<i>Cd109</i>	similar to CD109 antigen	2.0849		0.0112	1.6449	0.0379

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Gosr1</i>	golgi SNAP receptor complex member 1	2.0825		0.0330	1.9869	0.0257
<i>Cbfa2t2</i>	similar to core-binding factor, runt domain, alpha subunit 2, translocated to, 2 homolog	2.0750		0.0465	2.2698	0.0190
<i>Loc362710</i>	similar to EEED8.6 isoform 2	2.0738		0.0329	1.8772	0.0286
<i>Dnal1</i>	similar to axonemal dynein light chain 1	2.0687		0.0316	2.3676	0.0167
<i>Rgd1310553</i>	hypothetical protein LOC301374	2.0648		0.0320	1.7966	0.0382
<i>Loc681292</i>	hypothetical protein	2.0633		0.0277	1.9523	0.0383
<i>Arr3</i>	similar to arrestin 3, retinal	2.0592		0.0316	2.5214	0.0047
<i>Syt4</i>	synaptotagmin 4	2.0512		0.0291	1.8653	0.0388
<i>Adipor2</i>	adiponectin receptor 2	2.0507		0.0368	5.2881	0.0036
<i>Pemt</i>	similar to Phosphatidylethanolamine N- methyltransferase (PEAMT) (PEMT)	2.0487		0.0176	1.9199	0.0301
<i>Tcp1111</i>	similar to CG16721-PA	2.0362		0.0383	2.3813	0.0093
<i>Dnajc6</i>	similar to DnaJ (Hsp40) homolog, subfamily C, member 6 isoform 1	2.0294		0.0411	1.7791	0.0473
<i>Rgd1565486</i>	similar to RNA binding motif protein 25	2.0278		0.0293	2.0868	0.0124
<i>Limk1</i>	LIM motif-containing protein kinase 1	2.0240		0.0056	1.7494	0.0075
<i>Loc679205</i>	similar to Nucleolar transcription factor 1 (Upstream-binding factor 1) (UBF-1) isoform 1	2.0221		0.0276	2.5602	0.0027
<i>Plekhg1</i>	similar to Pleckstrin homology domain- containing family G member 1	2.0219		0.0132	1.9890	0.0162
<i>Ddx42</i>	similar to DEAD box polypeptide 42 protein	2.0168		0.0151	1.8296	0.0338
<i>Loc688748</i>	hypothetical protein	2.0090		0.0083	1.5850	0.0247

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<i>Rfc1</i>	similar to Activator 1 140 kDa subunit (Replication factor C large subunit) (A1 140 kDa subunit) (RF-C 140 kDa subunit) (Activator 1 large subunit) (A1-P145) (Differentiation-specific element binding protein) (ISRE-binding protein)	2.0046		0.0151	2.3643	0.0403
<i>Ttbk2</i>	similar to tau tubulin kinase 1 isoform 1	1.9990		0.0156	1.6894	0.0484
<i>Rgd1560691</i>	similar to Calcium/calmodulin-dependent protein kinase type 1D (CaM kinase ID) (CaM kinase I delta) (CaMKI-delta) (CaM-KI delta) (CaMKI delta) (Camk1D) (CamKI-like protein kinase) (CKLiK) (mCKLiK) isoform 4	1.9910		0.0163	2.0823	0.0044
<i>Plcb4</i>	phospholipase C, beta 4	1.9806		0.0116	2.4853	0.0144
<i>Susd1</i>	similar to sushi domain containing 1	1.9772		0.0193	1.7262	0.0398
<i>Xk</i>	XK-related protein 1	1.9749		0.0245	2.7716	0.0248
<i>Sos2</i>	similar to son of sevenless homolog 2	1.9715		0.0448	1.9593	0.0456
<i>Frmd3</i>	similar to FERM domain containing 3	1.9690		0.0216	1.6676	0.0412
<i>Parn</i>	similar to Poly(A)-specific ribonuclease PARN (Polyadenylate-specific ribonuclease)	1.9688		0.0232	1.9655	0.0197
<i>Prkch</i>	protein kinase C, eta	1.9679		0.0027	1.5423	0.0340
<i>Opcml</i>	opioid-binding protein/cell adhesion molecule-like	1.9624		0.0036	1.7151	0.0239
<i>Myo7a</i>	myosin VIIA	1.9612		0.0041	2.1220	0.0025
<i>Grik2</i>	glutamate receptor 6	1.9597		0.0280	1.6686	0.0424
<i>Gpr75</i>	similar to G protein-coupled receptor 75	1.9592		0.0211	1.8059	0.0186
<i>Rgd1310429</i>	similar to protein kinase Njmu-R1	1.9589		0.0181	2.1036	0.0224
<i>Fam19a4</i>	similar to TFA4 protein	1.9515		0.0313	1.9977	0.0278

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Lsm11</i>	similar to U7 snRNA-associated Sm-like protein Lsm11	1.9470		0.0278	1.5658	0.0281
<i>Wdr1</i>	WD repeat domain 1	1.9449		0.0199	1.5758	0.0224
<i>Fmn2</i>	similar to Formin-2	1.9429		0.0329	1.7123	0.0413
<i>Rgd1561394</i>	similar to MLK-related kinase isoform 2	1.9390		0.0252	2.3580	0.0151
<i>Samd14</i>	sterile alpha motif domain containing 14	1.9343		0.0180	2.4647	0.0165
<i>Ank2</i>	similar to ankyrin 2 isoform 2	1.9331		0.0265	1.7074	0.0394
<i>Loc497842</i>	similar to guanylate cyclase 1, soluble, alpha 2	1.9248		0.0201	1.8151	0.0131
<i>Ptpn3</i>	similar to Tyrosine-protein phosphatase non-receptor type 3 (Protein-tyrosine phosphatase H1) (PTP-H1) isoform 1	1.9163		0.0223	1.7254	0.0178
<i>Rgd1563917</i>	similar to Nuclear autoantigen Sp-100 (Speckled 100 kDa) (Nuclear dot-associated Sp100 protein) (Lysp100b)	1.9118		0.0126	1.6238	0.0038
<i>Gss</i>	glutathione synthetase	1.9104		0.0334	1.9114	0.0261
<i>Stx5</i>	syntaxin 5a	1.9062		0.0460	1.5351	0.0459
<i>Sox5</i>	similar to Transcription factor SOX-5	1.8978		0.0315	1.9304	0.0215
<i>Ttc15</i>	similar to tetratricopeptide repeat domain 15	1.8958		0.0432	2.3608	0.0170
<i>Pcdhga8</i>	protocadherin gamma subfamily A, 8	1.8839		0.0111	3.5507	0.0202
<i>Loc679379</i>	similar to syntaxin 19	1.8761		0.0180	1.7074	0.0137
<i>Kcnj16</i>	potassium inwardly-rectifying channel J16	1.8630		0.0123	1.8505	0.0118
<i>Selo</i>	selenoprotein O	1.8602		0.0188	2.0724	0.0176
<i>Cap1</i>	CAP, adenylate cyclase-associated protein 1	1.8280		0.0317	1.5235	0.0333
<i>Ak3l1</i>	adenylate kinase 3-like 1	1.8263		0.0271	2.0270	0.0231
<i>Loc681839</i>	hypothetical protein	1.8043		0.0231	1.7080	0.0325

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		Fold Change	p-Value	Fold Change	p-Value	
<i>Amigo2</i>	amphoterin induced gene 2	1.7903		0.0147	1.6406	0.0323
<i>Irak3</i>	similar to interleukin-1 receptor-associated kinase 3	1.7893		0.0244	1.9739	0.0115
<i>Fam134c</i>	hypothetical protein isoform 1	1.7825		0.0489	1.6852	0.0337
<i>Bcl10</i>	dimethylarginine dimethylaminohydrolase 1	1.7759		0.0400	2.0217	0.0228
<i>Gtf2ird1</i>	general transcription factor II I repeat domain-containing 1	1.7715		0.0311	1.5353	0.0361
<i>Myo1d</i>	myosin IC	1.7684		0.0085	2.0252	0.0178
<i>Ndr3</i>	similar to N-myc downstream regulated gene 3	1.7668		0.0463	1.7322	0.0349
<i>Akap12</i>	A kinase anchor protein 12 isoform beta	1.7663		0.0405	1.6667	0.0487
<i>Chi3l1</i>	chitinase 3-like 1	1.7643		0.0190	1.7647	0.0154
<i>Stim2</i>	similar to Stromal interaction molecule 2 precursor	1.7625		0.0402	1.6123	0.0468
<i>Haus2</i>	similar to Centrosomal protein of 27 kDa (Cep27 protein)	1.7552		0.0175	2.0804	0.0034
<i>Prkcd</i>	protein kinase C, delta	1.7551		0.0240	1.8741	0.0124
<i>Cnot10</i>	CCR4-NOT transcription complex, subunit 10	1.7404		0.0360	1.5696	0.0267
<i>Loc680654</i>	similar to CRSP complex subunit 2 (Cofactor required for Sp1 transcriptional activation subunit 2) (Transcriptional coactivator CRSP150) (Vitamin D3 receptor-interacting protein complex 150 kDa component) (DRIP150) (Thyroid hormone receptor-associa...	1.7399		0.0190	1.8104	0.0221

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Apba1</i>	amyloid beta (A4) precursor protein-binding, family A, member 1	1.7388		0.0468	1.7831	0.0171
<i>Fam5b</i>	BMP/retinoic acid-inducible neural-specific protein 2	1.7349		0.0371	1.7900	0.0240
<i>Ggps1</i>	geranylgeranyl diphosphate synthase 1	1.7272		0.0389	1.9425	0.0217
<i>Loc688680</i>	similar to CTP synthase (UTP--ammonia ligase) (CTP synthetase)	1.7267		0.0340	1.6984	0.0146
<i>Lrrc9</i>	similar to T05H4.3 isoform 2	1.7148		0.0413	2.2349	0.0407
<i>Smarcd3</i>	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3	1.7114		0.0486	1.8458	0.0375
<i>Ctps</i>	similar to CTP synthase (UTP--ammonia ligase) (CTP synthetase)	1.7105		0.0280	1.6204	0.0250
<i>Pitpnc1</i>	similar to retinal degeneration B beta	1.7014		0.0418	1.7544	0.0485
<i>Rgd1564013</i>	hypothetical protein	1.6957		0.0265	1.5806	0.0060
<i>Rgd1564887</i>	similar to CG8379-PA, isoform A	1.6919		0.0320	1.6326	0.0246
<i>Fam194a</i>	hypothetical protein LOC499626	1.6876		0.0241	2.3907	0.0025
<i>Tjp1</i>	similar to tight junction protein 1	1.6709		0.0296	1.5804	0.0435
<i>St8sia1</i>	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 1	1.6708		0.0370	1.6547	0.0174
<i>Mrps2</i>	similar to Mitochondrial 28S ribosomal protein S2 (S2mt) (MRP-S2)	1.6682		0.0287	1.7881	0.0308
<i>Tspyl2</i>	similar to nucleolar TGF-beta1 target protein	1.6646		0.0476	1.6386	0.0163
<i>Sh3bp5</i>	SH3-domain binding protein 5 (BTK-associated)	1.6474		0.0215	1.6447	0.0159
<i>Trip13</i>	thyroid hormone receptor interactor 13	1.6447		0.0380	2.5465	0.0196

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ppp2r5a</i>	similar to protein phosphatase 2, regulatory subunit B (B56), alpha isoform	1.6436		0.0322	1.8792	0.0184
<i>Cpne9</i>	copine family member IX	1.6394		0.0206	1.6866	0.0405
<i>Slc17a6</i>	solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 6	1.6384		0.0154	1.8118	0.0406
<i>Fbxl2</i>	similar to F-box and leucine-rich repeat protein 2	1.6307		0.0411	1.5600	0.0313
<i>Cab39</i>	similar to MO25 protein	1.6200		0.0299	2.0356	0.0317
<i>Ttl</i>	tubulin tyrosine ligase	1.5780		0.0397	1.7432	0.0129
<i>Flt3</i>	similar to FL cytokine receptor precursor (Tyrosine-protein kinase receptor flk-2) (Fetal liver kinase 2) (Tyrosine-protein kinase FLT3)	1.5778		0.0270	1.5847	0.0478
<i>Usp7</i>	ubiquitin specific protease 7 (herpes virus-associated)	1.5739		0.0291	1.5656	0.0292
<i>Rgd1307158</i>	similar to oocyte-testis gene 1	1.5715		0.0439	1.8280	0.0328
<i>Rad51c</i>	similar to Rad51 homolog c	1.5695		0.0171	1.6526	0.0107
<i>Kif3b</i>	similar to Kinesin-like protein KIF3B (Microtubule plus end-directed kinesin motor 3B) isoform 1	1.5674		0.0464	1.6094	0.0364
<i>Prep</i>	prolyl endopeptidase	1.5541		0.0446	1.6313	0.0161
<i>Rgd1560691</i>	similar to Calcium/calmodulin-dependent protein kinase type 1D (CaM kinase ID) (CaM kinase I delta) (CaMKI-delta) (CaM-KI delta) (CaMKI delta) (Camk1D) (CamKI-like protein kinase) (CKLiK) (mCKLiK) isoform 2	1.5190		0.0384	1.7069	0.0142

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1565010</i>	similar to OTU domain, ubiquitin aldehyde binding 1	1.5060		0.0479	1.5951	0.0326
<i>Lef1</i>	lymphoid enhancer binding factor 1	1.5019		0.0382	1.6833	0.0094
<i>Clec4f</i>	C-type lectin, superfamily member 13	0.6655		0.0401	0.5824	0.0190
<i>Foxd2</i>	similar to Forkhead box protein D2 (Mesoderm/mesenchyme forkhead 2) (MF-2)	0.6643		0.0442	0.5112	0.0071
<i>Krt76</i>	type II keratin Kb9	0.6612		0.0178	0.6265	0.0143
<i>Loc685597</i>	hypothetical protein	0.6608		0.0357	0.5459	0.0186
<i>Map4k1</i>	similar to Mitogen-activated protein kinase kinase kinase 1 (MAPK/ERK kinase kinase 1) (MEK kinase kinase 1) (MEKKK 1) (Hematopoietic progenitor kinase) (HPK)	0.6606		0.0244	0.5881	0.0451
<i>Adamts14</i>	similar to ADAM metalloproteinase with thrombospondin type 1 motif, 14 isoform 2 preproprotein	0.6587		0.0241	0.6221	0.0205
<i>Wdr25</i>	similar to pre-mRNA splicing factor-like	0.6576		0.0291	0.6137	0.0152
<i>Loc687409</i>	similar to septin 10 isoform 1	0.6565		0.0434	0.6196	0.0225
<i>Il27ra</i>	similar to Interleukin-27 receptor alpha chain precursor (IL-27R-alpha) (WSX-1) (Type I T-cell cytokine receptor) (TCCR)	0.6541		0.0284	0.6363	0.0172
<i>Klk11</i>	similar to protease, serine, 20	0.6506		0.0202	0.6582	0.0269
<i>Tssk1</i>	testis-specific serine kinase 1	0.6503		0.0367	0.6077	0.0124
<i>Krt85</i>	similar to keratin complex 2, basic, gene 25 isoform 1	0.6498		0.0491	0.5537	0.0128
<i>Loc690007</i>	hypothetical protein	0.6481		0.0101	0.5592	0.0281
<i>Duox1</i>	dual oxidase 1	0.6455		0.0286	0.5521	0.0179

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc685385</i>	similar to S100 calcium binding protein A14	0.6444		0.0414	0.6650	0.0230
<i>Nfkbid</i>	similar to NF-kappa B inhibitor	0.6441		0.0413	0.5329	0.0309
<i>Alx3</i>	aristaless 3	0.6438		0.0455	0.6598	0.0414
<i>Hspa1a</i>	heat shock 70kD protein 1B	0.6434		0.0382	0.6058	0.0465
<i>Zfp385c</i>	similar to zinc finger protein 533	0.6419		0.0330	0.4901	0.0019
<i>Asb18</i>	similar to ankyrin repeat and SOCS box-containing 18	0.6417		0.0065	0.5013	0.0068
<i>Enthd1</i>	hypothetical protein	0.6416		0.0252	0.6578	0.0124
<i>Rgd1564163</i>	hypothetical protein	0.6406		0.0284	0.4634	0.0072
<i>Nfkbid</i>	similar to NF-kappa B inhibitor	0.6405		0.0345	0.5114	0.0329
<i>Slc7a9</i>	solute carrier family 7 (cationic amino acid transporter, y+ system), member 9	0.6380		0.0130	0.6341	0.0324
<i>Auts2</i>	similar to autism susceptibility candidate 2	0.6370		0.0355	0.5056	0.0303
<i>Rgd1563458</i>	similar to Protein FAM50B (XAP-5-like protein)	0.6356		0.0459	0.6603	0.0410
<i>Mypn</i>	similar to myopalladin	0.6352		0.0123	0.6003	0.0195
<i>Actrt2</i>	actin-related protein M2	0.6350		0.0310	0.5364	0.0352
<i>Aire</i>	similar to Autoimmune regulator (Autoimmune polyendocrinopathy candidiasis ectodermal dystrophy protein homolog) (APECED protein homolog)	0.6316		0.0339	0.5997	0.0147
<i>Rgd1561759</i>	similar to FERM domain containing 1	0.6310		0.0166	0.6644	0.0150
<i>Loc690993</i>	hypothetical protein	0.6309		0.0452	0.5360	0.0118
<i>Lrrc25</i>	similar to leucine rich repeat containing 25	0.6307		0.0155	0.6277	0.0230
<i>Rgd1565284</i>	hypothetical protein	0.6283		0.0453	0.5484	0.0093

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Zbp1</i>	similar to Z-DNA binding protein 1 (Tumor stroma and activated macrophage protein DLM-1)	0.6281		0.0461	0.6220	0.0264
<i>Loc688155</i>	similar to Beta-1,4 N-acetylgalactosaminyltransferase 2	0.6268		0.0447	0.5687	0.0259
<i>Rgd1560940</i>	similar to testis serine protease 2	0.6263		0.0380	0.5923	0.0085
<i>Rgd1563142</i>	similar to Polyadenylate-binding protein 1 (Poly(A)-binding protein 1) (PABP 1)	0.6260		0.0228	0.5679	0.0143
<i>Fut1</i>	fucosyltransferase 1	0.6233		0.0468	0.5131	0.0131
<i>Trib3</i>	tribbles homolog 3	0.6225		0.0317	0.5743	0.0102
<i>Il17c</i>	similar to interleukin 17C	0.6224		0.0244	0.6396	0.0301
<i>Slc2a7</i>	similar to intestinal facilitative glucose transporter 7	0.6219		0.0139	0.6051	0.0384
<i>Loc500825</i>	hypothetical protein LOC500825	0.6216		0.0387	0.6602	0.0242
<i>Lefty1</i>	similar to Transforming growth factor beta-4 precursor (TGF-beta-4) (Lefty protein) (Lefty-1 protein) (STRA3 protein)	0.6203		0.0423	0.5659	0.0112
<i>Loc502382</i>	similar to forkhead box B1	0.6197		0.0329	0.5052	0.0128
<i>Loc684792</i>	hypothetical protein	0.6193		0.0334	0.5736	0.0257
<i>Rfc5</i>	similar to Activator 1 36 kDa subunit (Replication factor C 36 kDa subunit) (A1 36 kDa subunit) (RF-C 36 kDa subunit) (RFC36) (Replication factor C subunit 5)	0.6180		0.0480	0.4467	0.0066
<i>Aqp8</i>	aquaporin 8	0.6161		0.0290	0.6404	0.0246
<i>Podn1</i>	similar to Fibromodulin precursor (FM) (Collagen-binding 59 kDa protein) (Keratan sulfate proteoglycan fibromodulin) (KSPG fibromodulin)	0.6152		0.0416	0.5582	0.0177

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Prg2</i>	proteoglycan 2, bone marrow	0.6142		0.0053	0.4829	0.0043
<i>Ngfr</i>	nerve growth factor receptor, fast	0.6138		0.0374	0.5225	0.0056
<i>Loc689298</i>	hypothetical protein	0.6130		0.0424	0.5711	0.0218
<i>Jph2</i>	junctophilin 2	0.6128		0.0222	0.5663	0.0050
<i>Ugt2a1</i>	UDP-glucuronosyltransferase 2A1 precursor	0.6108		0.0186	0.5960	0.0227
<i>Tff1</i>	trefoil factor 1	0.6102		0.0154	0.6647	0.0287
<i>Gja3</i>	gap junction membrane channel protein alpha 3	0.6101		0.0103	0.6158	0.0043
<i>Foxo3</i>	similar to forkhead box O3a	0.6101		0.0367	0.6231	0.0244
<i>Loc689528</i>	hypothetical protein	0.6096		0.0462	0.5059	0.0047
<i>Defb24</i>	defensin beta 24	0.6095		0.0067	0.5694	0.0047
<i>Eri3</i>	similar to prion protein interacting protein 1	0.6092		0.0395	0.5097	0.0046
<i>Zbtb37</i>	similar to zinc finger and BTB domain containing 37	0.6091		0.0351	0.6236	0.0412
<i>P2ry4</i>	purinergic receptor P2Y, G-protein coupled, 4	0.6091		0.0442	0.5371	0.0345
<i>Loc680269</i>	hypothetical protein	0.6089		0.0094	0.6495	0.0241
<i>Loc683035</i>	hypothetical protein	0.6085		0.0335	0.6096	0.0168
<i>Rgd1310964</i>	similar to RIKEN cDNA 6430598A04 gene isoform 2	0.6078		0.0188	0.6514	0.0434
<i>Slc26a5</i>	prestin	0.6073		0.0094	0.6120	0.0083
<i>Tnfsf14</i>	similar to Tumor necrosis factor ligand superfamily member 14 (CD258 antigen)	0.6069		0.0118	0.4979	0.0041
<i>Ahrr</i>	aryl-hydrocarbon receptor repressor	0.6068		0.0236	0.4989	0.0065
<i>Pi16</i>	similar to protease inhibitor 16	0.6067		0.0403	0.5686	0.0203

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ptprcap</i>	similar to protein tyrosine phosphatase, receptor type, C polypeptide-associated protein	0.6067		0.0484	0.5792	0.0468
<i>Srl</i>	similar to sarcalumenin	0.6064		0.0109	0.5667	0.0038
<i>Efcab4b</i>	similar to RAS and EF hand domain containing	0.6060		0.0255	0.6299	0.0075
<i>Loc686171</i>	hypothetical protein	0.6037		0.0387	0.4813	0.0150
<i>Loc688802</i>	similar to geminin	0.6033		0.0092	0.6168	0.0111
<i>Susd5</i>	similar to brevican isoform 2	0.6030		0.0127	0.6072	0.0079
<i>Cyb561d1</i>	similar to cytochrome b-561 domain containing 1	0.6027		0.0371	0.4755	0.0131
<i>Loc685202</i>	hypothetical protein	0.6021		0.0119	0.6387	0.0232
<i>Npbwr1</i>	neuropeptides B/W receptor 1	0.6020		0.0308	0.5621	0.0258
<i>Anxa8</i>	annexin A8	0.6007		0.0471	0.5707	0.0379
<i>Emp3</i>	epithelial membrane protein 3	0.6006		0.0251	0.6222	0.0356
<i>Prss33</i>	similar to protease, serine, 33	0.6003		0.0401	0.6014	0.0307
<i>Loc679966</i>	hypothetical protein	0.6002		0.0114	0.5882	0.0045
<i>Tmem82</i>	hypothetical protein	0.6001		0.0140	0.5969	0.0182
<i>Tcf23</i>	similar to transcription factor 23	0.5989		0.0489	0.5566	0.0394
<i>Itga10</i>	similar to integrin, alpha 10 precursor	0.5986		0.0378	0.6225	0.0158
<i>Prrx2</i>	similar to Paired mesoderm homeobox protein 2 (PRX-2) (Paired-related homeobox protein 2)	0.5980		0.0293	0.4997	0.0027
<i>Myod1</i>	myogenic differentiation 1	0.5977		0.0440	0.5287	0.0158
<i>Mixl1</i>	similar to Mix1 homeobox-like 1	0.5963		0.0346	0.5485	0.0295
<i>Loc298795</i>	similar to 14-3-3 protein sigma (Stratifin)	0.5953		0.0277	0.6199	0.0472
<i>Rsph9</i>	similar to CG31803-PA	0.5944		0.0252	0.5879	0.0423

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gja5</i>	gap junction membrane channel protein alpha 5	0.5930		0.0127	0.6181	0.0096
<i>Col17a1</i>	similar to procollagen, type XVII, alpha 1	0.5927		0.0304	0.5956	0.0248
<i>Loc682699</i>	hypothetical protein	0.5925		0.0376	0.4058	0.0204
<i>Procr</i>	protein C receptor, endothelial	0.5925		0.0162	0.5831	0.0210
<i>Cel</i>	carboxyl ester lipase	0.5923		0.0151	0.6512	0.0174
<i>Rgd1561812</i>	similar to Retinol dehydrogenase 2 (Retinol dehydrogenase type II) (RODH II) (29 k-protein)	0.5917		0.0387	0.5658	0.0226
<i>Loc680818</i>	hypothetical protein	0.5910		0.0146	0.6067	0.0067
<i>Dsg3</i>	similar to Desmoglein-3 precursor (130 kDa pemphigus vulgaris antigen homolog)	0.5906		0.0475	0.5554	0.0090
<i>Upk1b</i>	hypothetical protein	0.5889		0.0268	0.5903	0.0355
<i>Col7a1</i>	similar to procollagen, type VII, alpha 1	0.5881		0.0330	0.5630	0.0388
<i>Cib3</i>	similar to DNA-dependent protein kinase catalytic subunit-interacting protein 3	0.5881		0.0316	0.4913	0.0198
<i>Loc290876</i>	hypothetical protein LOC290876	0.5864		0.0429	0.6570	0.0158
<i>Hfe2</i>	hemochromatosis type 2 (juvenile) homolog	0.5861		0.0103	0.6121	0.0055
<i>Loc686261</i>	similar to forkhead box K1 isoform alpha	0.5856		0.0244	0.5069	0.0025
<i>Tnfsf13b</i>	similar to Tumor necrosis factor ligand superfamily member 13B (B cell-activating factor) (BAFF) (CD257 antigen)	0.5853		0.0387	0.5142	0.0381
<i>Fam100b</i>	hypothetical protein	0.5852		0.0457	0.5003	0.0434
<i>Enpep</i>	similar to glutamyl aminopeptidase	0.5848		0.0176	0.6421	0.0230
<i>Cela2a</i>	elastase 2	0.5840		0.0450	0.5697	0.0488
<i>Loc499276</i>	hypothetical protein	0.5833		0.0170	0.5523	0.0051
<i>Cnga4</i>	cyclic nucleotide gated cation channel	0.5827		0.0444	0.6175	0.0352

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Col3a1</i>	procollagen, type III, alpha 1	0.5826		0.0356	0.4331	0.0003
<i>Crct1</i>	hypothetical protein	0.5821		0.0172	0.3846	0.0125
<i>Loc365969</i>	similar to Cystinosin	0.5816		0.0086	0.6519	0.0222
<i>Apobec3f</i>	apolipoprotein B editing complex 3	0.5810		0.0355	0.5816	0.0331
<i>Loc690456</i>	hypothetical protein	0.5776		0.0458	0.5790	0.0405
<i>Lipc</i>	lipase, hepatic	0.5774		0.0168	0.6089	0.0113
<i>Pcdh1</i>	similar to protocadherin 1 isoform 2 precursor	0.5770		0.0268	0.5755	0.0044
<i>Loc689889</i>	hypothetical protein	0.5764		0.0040	0.6317	0.0031
<i>Loc688005</i>	similar to EMI domain containing 1	0.5764		0.0077	0.4549	0.0043
<i>Loc501274</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.5755		0.0390	0.5566	0.0152
<i>Csprs</i>	similar to component of Sp100-rs	0.5753		0.0395	0.4941	0.0108
<i>Loc498222</i>	similar to specifically androgen-regulated protein	0.5753		0.0041	0.4754	0.0167
<i>Loc684525</i>	similar to stefin A2 like 1	0.5744		0.0256	0.6346	0.0213
<i>Srxn1</i>	sulfiredoxin 1 homolog	0.5733		0.0128	0.5984	0.0079
<i>Cd79a</i>	similar to CD79A antigen (immunoglobulin-associated alpha)	0.5733		0.0050	0.5126	0.0071
<i>Loc690368</i>	hypothetical protein	0.5729		0.0079	0.4974	0.0046
<i>Fgf17</i>	fibroblast growth factor 17	0.5729		0.0473	0.5197	0.0203
<i>Loc688108</i>	similar to nidogen 2	0.5727		0.0466	0.5907	0.0473
<i>Eps8l1</i>	similar to epidermal growth factor receptor pathway substrate 8-like protein 1	0.5722		0.0493	0.4944	0.0124
<i>Rab25</i>	similar to RAB25, member RAS oncogene family	0.5722		0.0047	0.6493	0.0159
<i>Rgd1305928</i>	hypothetical protein	0.5721		0.0288	0.5991	0.0214

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Mgst3</i>	similar to microsomal glutathione S-transferase 3	0.5719		0.0364	0.5762	0.0314
<i>Rgd1562063</i>	similar to KIAA1875 protein	0.5718		0.0363	0.6453	0.0242
<i>Megf6</i>	EGF-like-domain, multiple 3	0.5714		0.0118	0.5711	0.0108
<i>Loc681008</i>	hypothetical protein	0.5709		0.0175	0.5451	0.0113
<i>Loc689035</i>	similar to CG5946-PB, isoform B	0.5699		0.0140	0.6348	0.0192
<i>Loc303566</i>	ankyrin repeat and SOCS box-containing 16	0.5696		0.0266	0.6181	0.0251
<i>Ptk6</i>	similar to PTK6 protein tyrosine kinase 6	0.5695		0.0367	0.5706	0.0436
<i>Cnn1</i>	calponin 1	0.5691		0.0187	0.5087	0.0354
<i>Loc683980</i>	similar to keratinocytes associated protein 3	0.5684		0.0251	0.4990	0.0099
<i>Loc684137</i>	similar to regulator of G-protein signalling like 1 isoform 2	0.5673		0.0336	0.5621	0.0291
<i>Loc501274</i>	hypothetical protein LOC363337	0.5667		0.0438	0.5782	0.0157
<i>Loc681000</i>	hypothetical protein	0.5666		0.0288	0.5858	0.0372
<i>Cnksr1</i>	connector enhancer of kinase suppressor of Ras 1	0.5650		0.0060	0.6373	0.0119
<i>Loc295015</i>	similar to GTPase activating protein testicular GAP1	0.5647		0.0269	0.5252	0.0082
<i>Fchsd1</i>	similar to FCH and double SH3 domains 1	0.5639		0.0270	0.5533	0.0156
<i>Car15</i>	similar to carbonic anhydrase 15	0.5639		0.0267	0.6298	0.0213
<i>Pabpc4l</i>	similar to Polyadenylate-binding protein 4 (Poly(A)-binding protein 4) (PABP 4) (Inducible poly(A)-binding protein) (iPABP) (Activated-platelet protein 1) (APP-1)	0.5631		0.0436	0.6410	0.0274
<i>Rgd1560303</i>	similar to MAP/microtubule affinity-regulating kinase 4 (MAP/microtubule affinity-regulating kinase-like 1)	0.5628		0.0424	0.6246	0.0358

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1560359</i>	similar to delta/notch-like EGF-related receptor	0.5624		0.0477	0.3779	0.0014
<i>Enpp7</i>	sphingomyelinase, intestinal alkaline	0.5616		0.0381	0.4998	0.0148
<i>Ntf4</i>	neurotrophin 5	0.5613		0.0324	0.3943	0.0044
<i>Tmem211</i>	hypothetical protein	0.5609		0.0055	0.5918	0.0178
<i>Akp3</i>	intestinal alkaline phosphatase-II (IAP-II)	0.5609		0.0387	0.4341	0.0307
<i>Drd4</i>	dopamine receptor 4	0.5609		0.0363	0.5797	0.0143
<i>Pou4f3</i>	similar to POU domain, class 4, transcription factor 3 (Brain-specific homeobox/POU domain protein 3C) (Brn-3C)	0.5606		0.0181	0.5704	0.0072
<i>Rgd1564276</i>	similar to Serine/threonine-protein kinase MARK2 (MAP/microtubule affinity-regulating kinase 2) (ELKL motif kinase) (EMK1) (PAR1 homolog)	0.5606		0.0290	0.4852	0.0144
<i>Pttg1ip</i>	similar to pituitary tumor-transforming 1 interacting protein (predicted)	0.5604		0.0381	0.4660	0.0069
<i>Guca1b</i>	similar to guanylate cyclase activator 1B	0.5603		0.0265	0.4525	0.0061
<i>Bnc1</i>	similar to Zinc finger protein basonuclin-1	0.5599		0.0322	0.5982	0.0276
<i>Lypd3</i>	GPI-anchored metastasis-associated protein homolog	0.5597		0.0239	0.5213	0.0206
<i>Stfa2l3</i>	similar to stefin A2	0.5581		0.0337	0.5824	0.0299
<i>Spaca4</i>	similar to sperm acrosomal membrane protein 14	0.5580		0.0294	0.5368	0.0204
<i>Myoz1</i>	similar to myozenin 1	0.5578		0.0131	0.5007	0.0055
<i>Lect2</i>	similar to Leukocyte cell-derived chemotaxin 2 precursor (Chondromodulin II) (ChM-II)	0.5575		0.0171	0.6390	0.0136

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc684522</i>	hypothetical protein	0.5567		0.0273	0.4220	0.0346
<i>Rnase1l2</i>	hypothetical protein LOC305844	0.5563		0.0217	0.5624	0.0122
<i>Mist</i>	similar to cytokine-dependent hematopoietic cell linker	0.5561		0.0170	0.6316	0.0251
<i>Loc680614</i>	similar to ETAA16 protein	0.5558		0.0306	0.5236	0.0196
<i>Wdr8</i>	similar to WD-repeat protein 8	0.5558		0.0226	0.6615	0.0493
<i>F10</i>	coagulation factor 10	0.5553		0.0308	0.5128	0.0185
<i>Dpysl4</i>	similar to Dihydropyrimidinase-related protein 4 (DRP-4) (Collapsin response mediator protein 3) (CRMP-3) (UNC33-like phosphoprotein 4) (ULIP4 protein)	0.5547		0.0180	0.4786	0.0092
<i>Rgd1564899</i>	hypothetical protein	0.5547		0.0248	0.6139	0.0443
<i>Loc690270</i>	hypothetical protein	0.5544		0.0024	0.5167	0.0015
<i>Loc499376</i>	hypothetical protein	0.5541		0.0413	0.4356	0.0180
<i>Loc687009</i>	similar to EAT-2-related transducer	0.5541		0.0485	0.5674	0.0172
<i>Itgad</i>	integrin alpha X	0.5539		0.0348	0.5770	0.0049
<i>S1pr4</i>	similar to Sphingosine 1-phosphate receptor Edg-6 (S1P receptor Edg-6) (Endothelial differentiation G-protein coupled receptor 6) (Lysophospholipid receptor C1) (Sphingosine 1-phosphate receptor 4) (S1P4)	0.5532		0.0264	0.4891	0.0225
<i>Fam109b</i>	similar to CG12393-PA, isoform A	0.5530		0.0044	0.4900	0.0008
<i>Cilp</i>	similar to Cartilage intermediate layer protein 1 precursor (CILP-1)	0.5528		0.0044	0.5556	0.0030
<i>Loc502610</i>	hypothetical protein	0.5525		0.0242	0.5245	0.0132
<i>Parn</i>	similar to Poly(A)-specific ribonuclease PARN (Polyadenylate-specific ribonuclease)	0.5519		0.0105	0.6433	0.0283

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Dmp1</i>	dentin matrix protein 1	0.5507		0.0313	0.4908	0.0056
<i>Fcrl1</i>	similar to Fc receptor-like protein 1	0.5507		0.0037	0.5973	0.0054
<i>Loc681027</i>	hypothetical protein	0.5495		0.0355	0.5629	0.0301
<i>Loc680092</i>	hypothetical protein	0.5493		0.0456	0.5536	0.0385
<i>Loc690249</i>	hypothetical protein	0.5493		0.0500	0.5358	0.0489
<i>Loc688956</i>	hypothetical protein	0.5490		0.0097	0.5536	0.0099
<i>Arid5b</i>	similar to AT-rich interactive domain-containing protein 5B (ARID domain-containing protein 5B) (MRF1-like) (Modulator recognition factor protein 2) (MRF-2) (Developmentally and sexually retarded with transient immune abnormalities protein)...	0.5486		0.0135	0.5976	0.0224
<i>Mmp7</i>	matrix metalloproteinase 7	0.5483		0.0097	0.6294	0.0349
<i>Loc680529</i>	hypothetical protein	0.5468		0.0073	0.5665	0.0094
<i>M6prbp1</i>	similar to mannose-6-phosphate receptor binding protein 1	0.5466		0.0147	0.5872	0.0190
<i>Cd40lg</i>	tumor necrosis factor (ligand) superfamily, member 5	0.5462		0.0200	0.6081	0.0199
<i>Spink4</i>	Kazal type serine protease inhibitor 4	0.5459		0.0043	0.4632	0.0012
<i>Cyth4</i>	similar to cytohesin 4	0.5455		0.0060	0.6259	0.0190
<i>Loc691409</i>	hypothetical protein	0.5451		0.0459	0.4525	0.0063
<i>Ftcd</i>	formiminotransferase cyclodeaminase	0.5449		0.0417	0.4892	0.0229
<i>Lipg</i>	lipase, endothelial	0.5447		0.0482	0.5622	0.0308
<i>Kremen2</i>	similar to kringle-containing transmembrane protein 2	0.5442		0.0127	0.6200	0.0234
<i>Rab6b</i>	similar to RAB6B, member RAS oncogene family	0.5425		0.0180	0.5344	0.0156

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Myl7</i>	similar to Myosin regulatory light chain 2, atrial isoform (Myosin light chain 2a) (MLC-2a) (MLC2a) (Myosin regulatory light chain 7)	0.5416	0.0308	0.5452	0.0203
<i>Rgd1561562</i>	similar to TGFB-induced factor 2	0.5416	0.0112	0.5065	0.0323
<i>Epha10</i>	similar to Ephrin type-A receptor 10 precursor	0.5415	0.0178	0.5925	0.0112
<i>Oas1d</i>	2'-5' oligoadenylate synthetase 1D	0.5408	0.0325	0.5732	0.0376
<i>Gykl1</i>	similar to glycerol kinase-like 1	0.5406	0.0201	0.5472	0.0109
<i>Loc687207</i>	hypothetical protein	0.5405	0.0402	0.6338	0.0346
<i>Fam78a</i>	hypothetical protein	0.5404	0.0145	0.6335	0.0255
<i>Loc680160</i>	similar to keratin associated protein 4-7 isoform 1	0.5404	0.0414	0.4761	0.0072
<i>Rgd1564792</i>	hypothetical protein	0.5403	0.0250	0.5487	0.0111
<i>Crabp2</i>	cellular retinoic acid binding protein 2	0.5403	0.0149	0.5381	0.0092
<i>Loc681543</i>	similar to kinesin family member 1C	0.5400	0.0101	0.5424	0.0101
<i>#N/A</i>	similar to Taste receptor type 1 member 2 precursor (G-protein coupled receptor 71) (Sweet taste receptor T1R2)	0.5396	0.0223	0.4480	0.0039
<i>Gpr157</i>	G protein-coupled receptor 157	0.5392	0.0096	0.6613	0.0255
<i>Csdc2</i>	similar to Cold shock domain-containing protein C2 (RNA-binding protein PIPPin)	0.5392	0.0417	0.5738	0.0191
<i>Loc680092</i>	hypothetical protein	0.5391	0.0089	0.5469	0.0057
<i>Trim66</i>	similar to transcriptional intermediary factor 1 delta	0.5388	0.0277	0.5103	0.0132
<i>Gpc2</i>	glypican 2 (cerebroglycan)	0.5385	0.0086	0.5689	0.0072
<i>Loc690279</i>	similar to ankyrin repeat and kinase domain containing 1	0.5379	0.0183	0.6327	0.0476

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rspo4</i>	similar to R-spondin family, member 4	0.5377		0.0138	0.5418	0.0158
<i>Loc690463</i>	hypothetical protein	0.5373		0.0427	0.5029	0.0157
<i>Loc679382</i>	hypothetical protein	0.5368		0.0075	0.5503	0.0056
<i>Gpr156</i>	G protein-coupled receptor 156	0.5367		0.0055	0.4969	0.0016
<i>Abcc12</i>	ATP-binding cassette, sub-family C (CFTR/MRP), member 12	0.5364		0.0255	0.5511	0.0248
<i>Sf4</i>	similar to transmembrane 6 superfamily member 2	0.5359		0.0072	0.6593	0.0188
<i>Tnn</i>	similar to tenascin N	0.5359		0.0374	0.5134	0.0327
<i>Igsf2</i>	similar to immunoglobulin superfamily, member 2	0.5357		0.0065	0.4441	0.0075
<i>Marco</i>	similar to Macrophage receptor MARCO (Macrophage receptor with collagenous structure)	0.5355		0.0109	0.5281	0.0038
<i>Mmp8</i>	matrix metalloproteinase 8	0.5355		0.0492	0.4751	0.0428
<i>Loc680650</i>	similar to ribosomal protein L21	0.5353		0.0201	0.4393	0.0076
<i>Rgd1564906</i>	similar to Glutathione S-transferase alpha- 4 (Glutathione S-transferase Yk) (GST YK) (GST 8-8) (GST K) (GST A4-4)	0.5351		0.0373	0.5943	0.0253
<i>Ptger4</i>	prostaglandin E receptor 4, subtype EP4	0.5350		0.0114	0.6183	0.0227
<i>Meox1</i>	similar to Homeobox protein MOX-1 (Mesenchyme homeobox 1)	0.5344		0.0378	0.5136	0.0477
<i>Nhlh1</i>	similar to Helix-loop-helix protein 1 (HEN1) (Nescient helix loop helix 1) (NSCL-1)	0.5340		0.0487	0.4598	0.0226
<i>Loc686907</i>	similar to cis-Golgi matrix protein GM130 isoform 2	0.5337		0.0257	0.4844	0.0223
<i>Otop1</i>	otopetrin 1	0.5329		0.0363	0.4560	0.0106
<i>Loc682778</i>	similar to neuron navigator 3	0.5327		0.0117	0.4325	0.0072

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>C1qtnf9</i>	similar to adipocyte complement related protein of 30 kDa	0.5326		0.0210	0.5417	0.0153
<i>Loc691499</i>	similar to Zinc finger protein 469	0.5325		0.0364	0.5710	0.0329
<i>Dhh</i>	similar to Desert hedgehog protein precursor (DHH) (HHG-3)	0.5322		0.0169	0.6128	0.0223
<i>Col13a1</i>	similar to procollagen, type XIII, alpha 1	0.5322		0.0171	0.4566	0.0070
<i>Ildr1</i>	similar to immunoglobulin-like domain containing receptor 1	0.5320		0.0499	0.5341	0.0107
<i>Loc678812</i>	similar to deleted in malignant brain tumors 1 isoform c precursor	0.5316		0.0097	0.5533	0.0102
<i>Loc501233</i>	hypothetical protein LOC501233	0.5314		0.0143	0.6176	0.0328
<i>Ilf5</i>	similar to Interleukin-1 family member 5 (IL-1F5) (Interleukin-1 delta) (IL-1 delta) (Interleukin-1-like protein 1) (IL-1L1) (Interleukin-1 HY1) (IL-1HY1) (Interleukin-1 homolog 3) (IL-1H3)	0.5309		0.0196	0.3825	0.0047
<i>Loc687208</i>	similar to vacuolar protein sorting 37D	0.5308		0.0156	0.5915	0.0198
<i>Syt15</i>	synaptotagmin XV	0.5302		0.0343	0.4679	0.0107
<i>Obox5</i>	similar to oocyte specific homeobox 3	0.5297		0.0392	0.4141	0.0064
<i>Fcrl3</i>	similar to ets variant gene 3	0.5288		0.0098	0.4725	0.0110
<i>Loc684559</i>	hypothetical protein	0.5287		0.0057	0.5742	0.0087
<i>Serpnb3</i>	serine protease inhibitor B3	0.5284		0.0081	0.6585	0.0429
<i>Loc680334</i>	hypothetical protein	0.5283		0.0356	0.5424	0.0247
<i>Muc3a</i>	similar to mucin 17	0.5279		0.0214	0.5747	0.0197
<i>Loc301115</i>	similar to adenylate kinase 1	0.5277		0.0324	0.5851	0.0266
<i>Myf5</i>	similar to Myogenic factor 5 (Myf-5)	0.5275		0.0403	0.5830	0.0073
<i>Loc681847</i>	similar to CG5847-PA	0.5270		0.0180	0.6395	0.0415
<i>Cxcr5</i>	Burkitt lymphoma receptor 1	0.5261		0.0051	0.5845	0.0078

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Foxd4</i>	similar to Forkhead box protein D4 (Forkhead-related protein FKHL9) (Forkhead-related transcription factor 5) (FREAC-5) (Transcription factor FKH-2)	0.5243		0.0126	0.5217	0.0061
<i>Loc683311</i>	similar to S-arrestin (Retinal S-antigen) (48 kDa protein) (S-AG) (Rod photoreceptor arrestin)	0.5242		0.0372	0.5915	0.0235
<i>Klk14</i>	similar to kallikrein 14	0.5242		0.0243	0.5627	0.0174
<i>Mpz</i>	myelin protein zero	0.5241		0.0039	0.5749	0.0049
<i>Loc688390</i>	hypothetical protein	0.5234		0.0157	0.6539	0.0246
<i>Cfd</i>	adipsin	0.5232		0.0440	0.6000	0.0071
<i>Npm3</i>	similar to Nucleoplasmin-3	0.5221		0.0198	0.3932	0.0008
<i>Rgd1559875</i>	hypothetical protein	0.5219		0.0368	0.5538	0.0341
<i>Loc682961</i>	similar to olfactory receptor 981	0.5218		0.0132	0.5789	0.0397
<i>Myf6</i>	myogenic factor 6	0.5215		0.0358	0.5109	0.0243
<i>Ibsp</i>	integrin binding sialoprotein	0.5213		0.0021	0.5556	0.0016
<i>Loc683851</i>	hypothetical protein	0.5212		0.0206	0.5231	0.0211
<i>Rnase1</i>	ribonuclease, RNase A family, 1 (pancreatic)	0.5206		0.0072	0.4799	0.0045
<i>Hist1h3g</i>	similar to histone 1, H2ai (predicted)	0.5205		0.0226	0.4246	0.0058
<i>Loc684840</i>	similar to protein kinase Bsk146	0.5203		0.0113	0.4574	0.0023
<i>Gstm2</i>	glutathione S-transferase, mu 2	0.5201		0.0261	0.5617	0.0190
<i>Unc45b</i>	similar to cardiomyopathy associated 4	0.5197		0.0379	0.4343	0.0115
<i>Gata2</i>	GATA binding protein 2	0.5197		0.0074	0.6339	0.0114
<i>Znf771</i>	similar to zinc finger protein 553	0.5196		0.0179	0.6038	0.0161
<i>Loc692008</i>	hypothetical protein	0.5193		0.0144	0.4146	0.0329
<i>Chp2</i>	calcineurin B homologous protein 2	0.5191		0.0325	0.5426	0.0090

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Csf2rb</i>	colony stimulating factor 2 receptor, beta 1, low-affinity (granulocyte-macrophage)	0.5187		0.0294	0.6174	0.0106
<i>Rgd1566319</i>	similar to Sestrin-2	0.5182		0.0149	0.4851	0.0043
<i>Cnga2</i>	cyclic nucleotide gated channel 4	0.5182		0.0077	0.5385	0.0046
<i>Gcnt1</i>	glucosaminyl (N-acetyl) transferase 1, core 2	0.5181		0.0165	0.5215	0.0039
<i>Klk11</i>	similar to protease, serine, 20	0.5178		0.0066	0.6202	0.0037
<i>Fndc8</i>	hypothetical protein	0.5170		0.0104	0.4834	0.0066
<i>Cntd1</i>	similar to Vacuolar protein sorting protein 25 (ELL-associated protein of 20 kDa)	0.5168		0.0252	0.5633	0.0311
<i>Fmo13</i>	similar to flavin containing monooxygenase 5	0.5167		0.0494	0.5415	0.0352
<i>Loc691660</i>	similar to MIC2 like 1	0.5165		0.0415	0.5597	0.0276
<i>Igsf9</i>	similar to immunoglobulin superfamily, member 9	0.5165		0.0278	0.6069	0.0293
<i>Chat</i>	similar to Choline O-acetyltransferase (CHOACTase) (Choline acetylase) (ChAT)	0.5161		0.0324	0.5531	0.0265
<i>Ankrd57</i>	similar to ankyrin repeat domain 43	0.5161		0.0281	0.4990	0.0263
<i>F11</i>	coagulation factor XI	0.5159		0.0288	0.4541	0.0114
<i>Tmem162</i>	hypothetical protein	0.5156		0.0492	0.5553	0.0469
<i>Loc682875</i>	hypothetical protein	0.5155		0.0276	0.4722	0.0203
<i>Angpt4</i>	similar to Angiopoietin-4 precursor (ANG-4) (ANG-3)	0.5144		0.0020	0.6511	0.0244
<i>Soat2</i>	acyl-CoA:cholesterol acyltransferase 2	0.5139		0.0194	0.4769	0.0235
<i>Loc679977</i>	similar to retinoic acid early transcript 1L (predicted)	0.5139		0.0250	0.5657	0.0293
<i>Hoxb1</i>	similar to Homeobox protein Hox-B1 (Hox-2.9)	0.5131		0.0216	0.5376	0.0119

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Folr4</i>	similar to folate receptor 4 (delta) isoform 1	0.5127		0.0407	0.4850	0.0107
<i>Smgb</i>	neonatal submandibular gland protein B	0.5124		0.0247	0.5225	0.0115
<i>Igf2bp2</i>	similar to insulin-like growth factor 2 mRNA binding protein 2 isoform a	0.5117		0.0426	0.5417	0.0305
<i>Slc10a4</i>	solute carrier family 10 (sodium/bile acid cotransporter family), member 4	0.5115		0.0194	0.5027	0.0016
<i>Slc22a14</i>	similar to organic cation transporter like 4	0.5109		0.0095	0.6053	0.0367
<i>Cldn23</i>	claudin 23	0.5109		0.0105	0.5025	0.0064
<i>Gscl</i>	similar to Homeobox protein goosecoid-like (GSC-2)	0.5108		0.0261	0.6282	0.0366
<i>Loc689086</i>	hypothetical protein	0.5106		0.0442	0.4656	0.0068
<i>Rab11fip1</i>	similar to Rab coupling protein isoform 3	0.5106		0.0158	0.4575	0.0242
<i>Rgd1565693</i>	similar to GLE1 RNA export mediator-like (yeast)	0.5104		0.0499	0.4901	0.0310
<i>Kiss1</i>	KISS-1 metastasis-suppressor	0.5101		0.0011	0.5282	0.0014
<i>Loc690463</i>	hypothetical protein	0.5090		0.0290	0.5120	0.0088
<i>Cdcp1</i>	similar to CUB domain-containing protein 1	0.5090		0.0030	0.4721	0.0045
<i>Loc679536</i>	hypothetical protein	0.5088		0.0325	0.5581	0.0194
<i>Upk1b</i>	uroplakin 1B	0.5087		0.0148	0.5958	0.0253
<i>Dio3</i>	deiodinase, iodothyronine, type III	0.5086		0.0207	0.4884	0.0096
<i>Mill1</i>	MHC I like leukocyte 1	0.5082		0.0035	0.4503	0.0067
<i>Loc682639</i>	hypothetical protein	0.5081		0.0136	0.6615	0.0316
<i>Matn1</i>	matrilin 1, cartilage matrix protein	0.5079		0.0190	0.4424	0.0286
<i>Rgd1311447</i>	hypothetical protein isoform 2	0.5078		0.0391	0.4317	0.0112
<i>Gfra3</i>	glial cell line derived neurotrophic factor family receptor alpha 3	0.5077		0.0253	0.4579	0.0247

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Grhl2</i>	similar to transcription factor CP2-like 3	0.5077		0.0445	0.6603	0.0344
<i>Loc678883</i>	similar to Tumor necrosis factor receptor superfamily member EDAR precursor (Anhidrotic ectodysplasin receptor 1) (Ectodysplasin-A receptor) (Ectodermal dysplasia receptor) (Downless)	0.5075		0.0203	0.4804	0.0042
<i>Loc685574</i>	similar to zinc finger protein 334	0.5074		0.0094	0.5015	0.0037
<i>Loc686331</i>	hypothetical protein	0.5072		0.0348	0.4695	0.0230
<i>Hoxd12</i>	similar to Homeobox protein Hox-D12 (Hox-4.7) (Hox-5.6)	0.5066		0.0478	0.5464	0.0216
<i>Loc686250</i>	similar to unconventional myosin Myr2 I heavy chain	0.5058		0.0195	0.5230	0.0500
<i>Gm672</i>	similar to Protein KIAA0427	0.5058		0.0213	0.6221	0.0498
<i>Utf1</i>	similar to undifferentiated embryonic cell transcription factor 1	0.5055		0.0296	0.4292	0.0092
<i>Slc22a1</i>	solute carrier family 22 (organic cation transporter), member 1	0.5050		0.0280	0.6195	0.0396
<i>Rgd1565203</i>	similar to like-glycosyltransferase	0.5047		0.0092	0.6017	0.0401
<i>Rgd1564496</i>	similar to Myocyte-specific enhancer factor 2B (Serum response factor-like protein 2) (XMEF2) (RSRFR2)	0.5047		0.0258	0.4427	0.0070
<i>Ptgdr</i>	similar to prostaglandin D receptor	0.5045		0.0467	0.4847	0.0221
<i>Creg2</i>	similar to cellular repressor of E1A-stimulated genes 2	0.5044		0.0214	0.5894	0.0410
<i>Il1rl2</i>	interleukin 1 receptor-like 2	0.5038		0.0207	0.4435	0.0059
<i>Ckm</i>	creatine kinase, muscle	0.5035		0.0088	0.5214	0.0034
<i>Loc679516</i>	hypothetical protein	0.5032		0.0117	0.4427	0.0113

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Igsf9b</i>	similar to immunoglobulin superfamily, member 9	0.5026		0.0127	0.5501	0.0301
<i>Loc685047</i>	hypothetical protein	0.5025		0.0046	0.6154	0.0202
<i>Ntsr1</i>	similar to Neurotensin receptor type 1 (NT-R-1) (High-affinity levocabastine-insensitive neurotensin receptor) (NTRH)	0.5017		0.0047	0.5273	0.0263
<i>Svs6</i>	similar to Seminal vesicle secretory protein 6 precursor (Seminal vesicle secretory protein VI) (SVS VI) (Seminal vesicle protein 6) (SVSP99)	0.5014		0.0211	0.6228	0.0241
<i>Rgd1560271</i>	similar to MyoD family inhibitor (Myogenic repressor I-mf)	0.5013		0.0266	0.5260	0.0312
<i>Lcn8</i>	similar to lipocalin 8	0.5011		0.0036	0.5056	0.0015
<i>Rgd1561551</i>	similar to sulfotransferase	0.5011		0.0311	0.5161	0.0165
<i>Loc689558</i>	hypothetical protein	0.5008		0.0251	0.5580	0.0196
<i>Rgd1562059</i>	similar to thioesterase superfamily member 5	0.5008		0.0158	0.6171	0.0138
<i>Prap1</i>	proline-rich acidic protein 1	0.5007		0.0190	0.5943	0.0417
<i>Loc683045</i>	similar to macrophage activation 2 like	0.5004		0.0179	0.5638	0.0255
<i>Rgd1560224</i>	hypothetical protein	0.5001		0.0488	0.4508	0.0142
<i>Loc688974</i>	hypothetical protein	0.4997		0.0170	0.4740	0.0136
<i>Bri3</i>	brain protein I3 (predicted)	0.4996		0.0110	0.4996	0.0216
<i>Irx4</i>	similar to Iroquois-class homeodomain protein IRX-4 (Iroquois homeobox protein 4) (Homeodomain protein IRXA3) isoform 1	0.4994		0.0218	0.3849	0.0056
<i>Rgd1305928</i>	hypothetical protein	0.4990		0.0053	0.5090	0.0052
<i>Loc690719</i>	hypothetical protein	0.4990		0.0016	0.5256	0.0015
<i>Tspan11</i>	hypothetical protein LOC312727	0.4988		0.0324	0.5445	0.0207

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc684998</i>	hypothetical protein	0.4988		0.0107	0.5835	0.0270
<i>Mall</i>	mal, T-cell differentiation protein-like	0.4986		0.0278	0.4824	0.0101
<i>Nalp12</i>	similar to PYRIN-containing APAF1-like protein 7 isoform 2	0.4979		0.0089	0.4992	0.0054
<i>Dsg3</i>	similar to Desmoglein-3 precursor (130 kDa pemphigus vulgaris antigen homolog)	0.4975		0.0166	0.4828	0.0098
<i>Krt17</i>	type I keratin KA17	0.4972		0.0108	0.4696	0.0111
<i>Rgd1562754</i>	similar to leucine rich repeat containing 8 family, member E	0.4968		0.0025	0.5584	0.0041
<i>Tnfrsf13c</i>	similar to tumor necrosis factor receptor superfamily, member 13c	0.4968		0.0318	0.5825	0.0357
<i>Klk7</i>	similar to kallikrein 7	0.4967		0.0141	0.4623	0.0159
<i>Cyp2d2</i>	cytochrome P450, family 2, subfamily d, polypeptide 26	0.4966		0.0189	0.6249	0.0284
<i>Loc680629</i>	hypothetical protein	0.4965		0.0069	0.4705	0.0231
<i>F2r11</i>	Proteinase-activated receptor-2, G protein-coupled receptor 11	0.4964		0.0142	0.4973	0.0235
<i>Rgd1562420</i>	similar to ribosomal protein L19	0.4964		0.0386	0.5186	0.0378
<i>Gucy2c</i>	guanylate cyclase 2C	0.4963		0.0165	0.4642	0.0109
<i>Defa7</i>	defensin alpha 7	0.4962		0.0338	0.5329	0.0074
<i>Kif14</i>	similar to Kinesin-like protein KIF14	0.4962		0.0211	0.6599	0.0448
<i>Loc682033</i>	similar to Protein phosphatase 2A, 59 kDa regulatory subunit B (PP2A PR59) (PP2A B-PR59)	0.4960		0.0216	0.5984	0.0382
<i>Adamts15</i>	similar to a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 15	0.4946		0.0125	0.5817	0.0434
<i>Lst1</i>	leucocyte specific transcript 1	0.4942		0.0412	0.4548	0.0149

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Sstr5</i>	somatostatin receptor 5	0.4942		0.0127	0.5231	0.0055
<i>Cav3</i>	caveolin 3	0.4938		0.0106	0.6027	0.0431
<i>Wfdc16</i>	similar to WAP four-disulfide core domain 10A precursor	0.4938		0.0448	0.5123	0.0198
<i>Ncf4</i>	similar to neutrophil cytosolic factor 4	0.4935		0.0371	0.5226	0.0491
<i>Loc289334</i>	similar to CG6014-PA	0.4934		0.0255	0.5654	0.0413
<i>Lcn13</i>	similar to lipocalin 13	0.4932		0.0117	0.4092	0.0034
<i>Loc691670</i>	similar to natural killer cell protease 7	0.4932		0.0102	0.4823	0.0042
<i>Uroc1</i>	similar to urocanase domain containing 1	0.4932		0.0045	0.6137	0.0202
<i>Cd177</i>	similar to CD177 antigen	0.4932		0.0081	0.5652	0.0287
<i>Pitx1</i>	paired-like homeodomain transcription factor 1	0.4928		0.0328	0.6371	0.0381
<i>Emilin1</i>	similar to elastin microfibril interfacier 1	0.4919		0.0139	0.5260	0.0190
<i>Six5</i>	similar to Homeobox protein SIX5 (DM locus-associated homeodomain protein homolog)	0.4914		0.0162	0.5491	0.0331
<i>Hsd17b2</i>	hydroxysteroid (17-beta) dehydrogenase 2	0.4914		0.0237	0.4518	0.0108
<i>Loc691429</i>	hypothetical protein	0.4912		0.0101	0.5970	0.0238
<i>Hoxa10</i>	similar to Homeobox protein Hox-A10 (Hox-1.8)	0.4906		0.0021	0.5970	0.0037
<i>Lgals7</i>	lectin, galactose binding, soluble 7	0.4905		0.0275	0.6311	0.0191
<i>Baiap2l2</i>	similar to BA11-associated protein 2-like 2	0.4904		0.0164	0.5525	0.0075
<i>Tnfaip8l3</i>	similar to tumor necrosis factor, alpha- induced protein 8-like 3	0.4900		0.0079	0.4686	0.0051
<i>Myct1</i>	similar to myc target in myeloid cells 1	0.4891		0.0216	0.3918	0.0195
<i>Rgd1309926</i>	similar to neutrophil cytosolic factor 1	0.4885		0.0174	0.4968	0.0211

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gp2</i>	zymogen granule membrane glycoprotein 2	0.4882		0.0082	0.5081	0.0106
<i>Loc681751</i>	hypothetical protein	0.4880		0.0297	0.6505	0.0087
<i>Myh3</i>	myosin, heavy polypeptide 3	0.4879		0.0068	0.4816	0.0347
<i>Myh7b</i>	similar to myosin, heavy polypeptide 7B, cardiac muscle, beta	0.4878		0.0133	0.5954	0.0137
<i>Semg1</i>	seminal vesicle protein, secretion 2	0.4878		0.0495	0.4974	0.0178
<i>Loc298795</i>	hypothetical protein LOC298795	0.4877		0.0062	0.5631	0.0135
<i>Rgd1559982</i>	similar to paraneoplastic antigen MA3	0.4870		0.0302	0.5968	0.0335
<i>Loc684158</i>	similar to chromosome 1 open reading frame 36	0.4870		0.0255	0.4220	0.0096
<i>Loc685949</i>	hypothetical protein	0.4868		0.0032	0.5050	0.0012
<i>Slc46a2</i>	similar to thymic stromal cotransporter	0.4864		0.0438	0.5066	0.0325
<i>Rgd1564989</i>	hypothetical protein	0.4863		0.0477	0.4987	0.0428
<i>Loc306346</i>	similar to KIAA1683	0.4860		0.0363	0.5421	0.0160
<i>Hmga1</i>	high mobility group AT-hook 1	0.4855		0.0190	0.5173	0.0177
<i>Prf1</i>	perforin 1 (pore forming protein)	0.4852		0.0078	0.5605	0.0121
<i>Loc497952</i>	similar to Nice-4 protein homolog isoform 2	0.4850		0.0211	0.5140	0.0204
<i>Loc685203</i>	hypothetical protein	0.4848		0.0474	0.4307	0.0112
<i>Siglec10</i>	similar to Sialic acid-binding Ig-like lectin 10 precursor (Siglec-10) (Siglec-like protein 2)	0.4846		0.0467	0.4959	0.0334
<i>Loc687546</i>	hypothetical protein	0.4846		0.0383	0.4683	0.0118
<i>Tmem213</i>	hypothetical protein	0.4842		0.0198	0.4957	0.0129
<i>Loc679782</i>	similar to Retinoic acid early inducible protein 1 delta precursor (RAE-1delta)	0.4841		0.0190	0.5326	0.0212

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Pax3</i>	similar to paired box gene 3 isoform PAX3d	0.4840		0.0022	0.4396	0.0068
<i>Rgd1562638</i>	similar to MAP/microtubule affinity-regulating kinase 3	0.4837		0.0460	0.4196	0.0218
<i>Dmbx1</i>	similar to orthodenticle homolog 3 isoform b	0.4836		0.0071	0.5336	0.0086
<i>Loc681329</i>	hypothetical protein	0.4836		0.0216	0.5054	0.0331
<i>Slc41a2</i>	similar to solute carrier family 41, member 2	0.4834		0.0316	0.5007	0.0093
<i>Hnf4a</i>	hepatocyte nuclear factor 4 alpha	0.4834		0.0148	0.5324	0.0199
<i>Adam33</i>	similar to ADAM 33 precursor (A disintegrin and metalloproteinase domain 33)	0.4833		0.0038	0.6331	0.0150
<i>Wipi1</i>	similar to WD40 repeat protein Interacting with phosphoinositides of 49kDa	0.4831		0.0130	0.5271	0.0246
<i>Rgd1566296</i>	similar to thrombospondin repeat protein 1	0.4831		0.0335	0.4063	0.0163
<i>Loc679865</i>	hypothetical protein	0.4817		0.0124	0.4422	0.0122
<i>Fblim1</i>	CSX-associated LIM	0.4815		0.0054	0.4659	0.0134
<i>Loc686514</i>	similar to CG8541-PA	0.4814		0.0385	0.4576	0.0249
<i>Ccl19</i>	similar to Small inducible cytokine A19 precursor (CCL19) (Epstein-Barr virus-induced molecule 1 ligand chemokine) (EBI1-ligand chemokine) (ELC)	0.4813		0.0146	0.3816	0.0006
<i>Rgd1561816</i>	similar to forkhead box I2	0.4813		0.0172	0.4365	0.0074
<i>Rgd1563281</i>	similar to leucine rich repeat containing 3	0.4807		0.0135	0.6180	0.0332
<i>Loc680666</i>	hypothetical protein	0.4800		0.0107	0.5077	0.0338
<i>Dao</i>	D-amino acid oxidase 1	0.4795		0.0162	0.5711	0.0266

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Hgfac</i>	hepatocyte growth factor activator	0.4791		0.0158	0.5512	0.0315
<i>Selp</i>	selectin, platelet	0.4788		0.0138	0.5069	0.0340
<i>Cdc34</i>	cell division cycle 34 homolog (S. cerevisiae) (predicted)	0.4778		0.0212	0.4707	0.0095
<i>Gnpnat1</i>	similar to Glucosamine 6-phosphate N-acetyltransferase (Phosphoglucosamine transacetylase) (Phosphoglucosamine acetylase) (EMeg32 protein)	0.4778		0.0217	0.4189	0.0052
<i>Loc314328</i>	hypothetical protein LOC314328	0.4775		0.0303	0.4800	0.0124
<i>Bst2</i>	DAMP-1 protein	0.4767		0.0114	0.5359	0.0229
<i>Folr4</i>	similar to folate receptor 4 (delta) isoform 1	0.4764		0.0295	0.4853	0.0154
<i>Loc680122</i>	similar to sin3 associated polypeptide	0.4763		0.0128	0.4726	0.0045
<i>Loc690173</i>	hypothetical protein	0.4754		0.0030	0.3872	0.0017
<i>Foxa2</i>	forkhead box A2	0.4749		0.0183	0.4993	0.0073
<i>Slc24a1</i>	hypothetical protein	0.4749		0.0279	0.4459	0.0076
<i>Loc679413</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.4749		0.0143	0.4656	0.0070
<i>Rgd1562814</i>	similar to Peptidyl-prolyl cis-trans isomerase A (PPIase) (Rotamase) (Cyclophilin A) (Cyclosporin A-binding protein) (SP18)	0.4748		0.0324	0.4491	0.0095
<i>Loc499376</i>	hypothetical protein	0.4745		0.0156	0.5543	0.0248
<i>Sh2bpsm1</i>	SH2-B PH domain containing signaling mediator 1 isoform 2	0.4744		0.0033	0.4183	0.0083
<i>Tex101</i>	testis expressed gene 101	0.4742		0.0315	0.5305	0.0321
<i>Loc684621</i>	similar to germinal histone H4 gene	0.4742		0.0418	0.5862	0.0298

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc680888</i>	hypothetical protein	0.4742		0.0180	0.4635	0.0106
<i>Ugt3a2</i>	similar to UDP glycosyltransferases 3 family, polypeptide A2	0.4739		0.0149	0.5366	0.0066
<i>Car5a</i>	carbonic anhydrase 5	0.4738		0.0421	0.4532	0.0250
<i>Loc691813</i>	similar to phospholipase A2, group IVC (cytosolic, calcium-independent)	0.4737		0.0211	0.5287	0.0153
<i>Obscnl</i>	similar to obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF	0.4734		0.0141	0.4947	0.0189
<i>Loc687704</i>	hypothetical protein	0.4728		0.0134	0.5056	0.0101
<i>Dlx3</i>	similar to Homeobox protein DLX-3	0.4728		0.0059	0.5133	0.0016
<i>Loc689063</i>	similar to hepatic protein EIIH	0.4725		0.0362	0.4185	0.0145
<i>Loc689177</i>	hypothetical protein	0.4721		0.0381	0.4708	0.0434
<i>Ush1g</i>	similar to Usher syndrome 1G homolog	0.4717		0.0091	0.4827	0.0103
<i>Tlx1</i>	similar to T-cell leukemia, homeobox 1	0.4715		0.0032	0.6557	0.0139
<i>Fgf8</i>	fibroblast growth factor 8	0.4713		0.0124	0.5549	0.0178
<i>Runx2</i>	similar to runt related transcription factor 2	0.4708		0.0024	0.5561	0.0052
<i>Loc685480</i>	hypothetical protein	0.4706		0.0381	0.4488	0.0269
<i>Loxhd1</i>	similar to lipoxygenase homology domains 1	0.4705		0.0076	0.5341	0.0032
<i>Cdh26</i>	similar to Cadherin-like protein 26 precursor	0.4701		0.0013	0.4476	0.0003
<i>Serpina3m</i>	similar to Serine protease inhibitor A3M precursor (Serine protease inhibitor 2.4) (SPI-2.4)	0.4700		0.0237	0.4285	0.0132
<i>Rgd1562043</i>	similar to Claudin-22	0.4698		0.0229	0.5360	0.0319
<i>Blk</i>	B lymphoid kinase	0.4696		0.0189	0.5576	0.0153
<i>Adrb3</i>	adrenergic receptor, beta 3	0.4692		0.0212	0.5472	0.0245

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Onecut1</i>	one cut domain, family member 1	0.4686		0.0055	0.5351	0.0071
<i>Rgd1564579</i>	similar to yippee-like 3	0.4685		0.0011	0.5366	0.0125
<i>Loc682487</i>	hypothetical protein	0.4681		0.0012	0.4592	0.0054
<i>Loc678733</i>	hypothetical protein	0.4679		0.0303	0.4586	0.0180
<i>Tmc3</i>	similar to transmembrane channel-like gene family 3	0.4679		0.0407	0.4349	0.0255
<i>Ceacam19</i>	similar to carcinoembryonic antigen-like 1	0.4676		0.0424	0.4061	0.0101
<i>Znf703</i>	similar to zinc finger protein 703	0.4675		0.0162	0.4169	0.0267
<i>Atp6v1b1</i>	similar to ATPase, H ⁺ transporting, V1 subunit B, isoform 1	0.4675		0.0378	0.5160	0.0300
<i>Loc501274</i>	hypothetical protein	0.4674		0.0475	0.5037	0.0253
<i>Loc688988</i>	hypothetical protein	0.4673		0.0103	0.4805	0.0202
<i>Phox2a</i>	paired-like homeobox 2a	0.4672		0.0155	0.4264	0.0005
<i>Aspg</i>	lysophospholipase	0.4672		0.0025	0.5534	0.0044
<i>Mcoln2</i>	mucolipin 2	0.4672		0.0294	0.4584	0.0376
<i>Loc684385</i>	similar to unc-93 homolog A	0.4666		0.0233	0.4901	0.0179
<i>Nkx2-3</i>	similar to Homeobox protein Nkx-2.3 (Homeobox protein NK-2 homolog C) (Nkx2-C) (Homeobox protein NK-2 homolog 3)	0.4663		0.0006	0.4342	0.0003
<i>Loc691402</i>	hypothetical protein	0.4656		0.0276	0.5101	0.0461
<i>Loc685861</i>	similar to interferon-lambda2	0.4656		0.0195	0.5560	0.0210
<i>Pabpc112b</i>	similar to poly(A) binding protein, cytoplasmic 1	0.4652		0.0114	0.5163	0.0091
<i>Loc683990</i>	hypothetical protein	0.4650		0.0121	0.6109	0.0215
<i>Ctf1</i>	cardiotrophin 1	0.4649		0.0390	0.4734	0.0201
<i>Loc683495</i>	hypothetical protein	0.4647		0.0015	0.4595	0.0035
<i>Rgd1306091</i>	similar to cDNA sequence BC021891	0.4645		0.0236	0.3895	0.0049

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Pou4f1</i>	similar to POU domain, class 4, transcription factor 1 (Brain-specific homeobox/POU domain protein 3A) (Brn-3A) (Brn-3.0)	0.4644	0.0336	0.5800	0.0423
<i>Ano7</i>	new gene expressed in prostate	0.4643	0.0081	0.3230	0.0028
<i>Calm4</i>	similar to Calmodulin 4 (Calcium-binding protein Dd112)	0.4641	0.0218	0.3938	0.0258
<i>Crocc</i>	similar to ciliary rootlet coiled-coil, rootletin	0.4639	0.0282	0.4786	0.0151
<i>Phf13</i>	similar to PHD finger protein 13	0.4636	0.0043	0.5705	0.0089
<i>Loc687727</i>	similar to RNA binding motif protein 19	0.4634	0.0034	0.3372	0.0051
<i>Rgd1562170</i>	hypothetical protein	0.4632	0.0270	0.5218	0.0366
<i>Cldn7</i>	claudin 7	0.4631	0.0253	0.4582	0.0168
<i>Znf516</i>	similar to zinc finger protein 516	0.4630	0.0018	0.4276	0.0006
<i>Loc680586</i>	hypothetical protein	0.4628	0.0178	0.4771	0.0165
<i>Rgd1305222</i>	similar to CG15027-PA	0.4627	0.0352	0.4964	0.0252
<i>Loc687659</i>	similar to keratin associated protein 4-2	0.4625	0.0310	0.5276	0.0249
<i>Loc502176</i>	hypothetical protein LOC502176	0.4620	0.0427	0.4533	0.0260
<i>Fzd7</i>	hypothetical protein	0.4620	0.0038	0.5050	0.0024
<i>Prodh2</i>	similar to proline dehydrogenase (oxidase) 2 isoform 3	0.4619	0.0132	0.5177	0.0120
<i>Triml1</i>	similar to tripartite motif protein 39	0.4615	0.0298	0.4199	0.0136
<i>Cyp21a1</i>	cytochrome P450, subfamily 21A, polypeptide 1	0.4610	0.0093	0.4890	0.0168
<i>Pla2g4d</i>	similar to cytosolic phospholipase A2 delta	0.4605	0.0417	0.4151	0.0229
<i>Fetub</i>	fetuin beta	0.4602	0.0087	0.6027	0.0245
<i>Ly6d</i>	similar to Lymphocyte antigen Ly-6D precursor (Thymocyte B cell antigen) (ThB)	0.4601	0.0386	0.4044	0.0242

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc685007</i>	similar to unc-93 homolog A	0.4600		0.0065	0.5955	0.0183
<i>Loc688282</i>	hypothetical protein	0.4597		0.0213	0.5072	0.0321
<i>Prme</i>	similar to preferentially expressed antigen in melanoma-like 3	0.4593		0.0099	0.5341	0.0306
<i>Mybpc3</i>	similar to Myosin-binding protein C, cardiac-type (Cardiac MyBP-C) (C-protein, cardiac muscle isoform)	0.4587		0.0165	0.4869	0.0194
<i>Lim2</i>	lens intrinsic membrane protein 2, 19kDa	0.4587		0.0245	0.5045	0.0224
<i>Prodh2</i>	similar to proline dehydrogenase (oxidase) 2 isoform 2	0.4578		0.0125	0.4909	0.0090
<i>Loc498350</i>	hypothetical protein LOC498350	0.4577		0.0386	0.4480	0.0183
<i>Loc686149</i>	similar to Actin, aortic smooth muscle (Alpha-actin-2)	0.4576		0.0105	0.5005	0.0126
<i>Ccdc63</i>	hypothetical protein LOC304484	0.4571		0.0140	0.5305	0.0284
<i>Smtnl1</i>	similar to smoothelin-like 1	0.4569		0.0057	0.5237	0.0048
<i>Lrat</i>	lecithin retinol acyltransferase	0.4567		0.0011	0.6222	0.0085
<i>H1foo</i>	similar to H1 histone family, member O, oocyte-specific	0.4567		0.0038	0.5553	0.0105
<i>Loc684998</i>	hypothetical protein	0.4567		0.0211	0.4655	0.0125
<i>Loc682309</i>	hypothetical protein	0.4567		0.0457	0.4109	0.0213
<i>Cacna2d2</i>	calcium channel, voltage dependent, alpha2/delta subunit 2	0.4564		0.0164	0.4826	0.0154
<i>Gapdhs</i>	glyceraldehyde-3-phosphate dehydrogenase, spermatogenic	0.4563		0.0370	0.4340	0.0222
<i>Loc687915</i>	similar to NIPA-like domain containing 3	0.4559		0.0050	0.6295	0.0258
<i>Osm</i>	oncostatin M	0.4559		0.0081	0.4478	0.0030
<i>lars2</i>	similar to isoleucine-tRNA synthetase 2, mitochondrial	0.4559		0.0340	0.4388	0.0191

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Cckar</i>	cholecystokinin A receptor	0.4558		0.0276	0.4840	0.0334
<i>Loc682701</i>	hypothetical protein	0.4557		0.0261	0.3948	0.0071
<i>Loc686049</i>	hypothetical protein	0.4553		0.0210	0.4588	0.0182
<i>Cdkn1c</i>	cyclin-dependent kinase inhibitor 1C, p57 isoform 1	0.4553		0.0180	0.4700	0.0094
<i>Wnt9a</i>	similar to wingless-type MMTV integration site 9A	0.4550		0.0152	0.4535	0.0107
<i>Loc690774</i>	hypothetical protein	0.4550		0.0174	0.4661	0.0194
<i>Ush1c</i>	similar to Harmonin (Usher syndrome 1C protein homolog) (PDZ domain-containing protein) isoform 1	0.4549		0.0210	0.6506	0.0340
<i>Crx</i>	cone-rod homeobox protein	0.4547		0.0498	0.4970	0.0336
<i>Loc684621</i>	similar to germinal histone H4 gene	0.4546		0.0492	0.5226	0.0390
<i>Tnfaip2</i>	similar to Tumor necrosis factor, alpha-induced protein 2 (Primary response gene B94 protein)	0.4544		0.0201	0.4496	0.0093
<i>Nodal</i>	similar to Nodal precursor	0.4544		0.0228	0.4747	0.0300
<i>Loc686402</i>	similar to MIC2 like 1	0.4541		0.0466	0.4693	0.0132
<i>Nlrp6</i>	similar to NACHT-, LRR- and PYD-containing protein 6 (PYRIN-containing APAF1-like protein 5-like) (Angiotensin II/vasopressin receptor)	0.4541		0.0231	0.4678	0.0107
<i>E2f8</i>	similar to E2f family member 8 isoform 1	0.4540		0.0066	0.4856	0.0039
<i>Ins2</i>	insulin 2	0.4539		0.0099	0.5318	0.0231
<i>Rgd1564419</i>	hypothetical protein	0.4538		0.0047	0.4469	0.0011

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Plcb1</i>	similar to 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase beta 1 (Phosphoinositide phospholipase C) (Phospholipase C-beta-1) (PLC-beta-1) (PLC-I) (PLC-154)	0.4535	0.0225	0.4345	0.0167
<i>Loc681968</i>	hypothetical protein	0.4535	0.0425	0.4864	0.0323
<i>Lcn9</i>	similar to Epididymal-specific lipocalin-9 precursor (MUP-like lipocalin)	0.4529	0.0018	0.6133	0.0190
<i>Ceacam3</i>	hypothetical protein LOC308394	0.4526	0.0163	0.6003	0.0453
<i>Cpn2</i>	similar to carboxypeptidase N, polypeptide 2 homolog	0.4525	0.0213	0.4487	0.0283
<i>Loc690363</i>	similar to histidine-rich glycoprotein	0.4525	0.0477	0.4906	0.0481
<i>Scn4a</i>	sodium channel, voltage-gated, type 4, alpha polypeptide	0.4523	0.0349	0.4354	0.0359
<i>Pou5f2</i>	sperm 1 POU-domain transcription factor	0.4521	0.0138	0.5307	0.0169
<i>Gpr35</i>	G protein-coupled receptor 35	0.4510	0.0066	0.5781	0.0338
<i>Loc690079</i>	hypothetical protein	0.4508	0.0259	0.3967	0.0315
<i>Cryaa</i>	crystallin, alpha A	0.4508	0.0019	0.3256	0.0017
<i>Rab17</i>	similar to Ras-related protein Rab-17	0.4507	0.0100	0.5954	0.0210
<i>Rgd1561014</i>	similar to T-complex protein 1 subunit zeta-2 (TCP-1-zeta-2) (CCT-zeta-2) (Cctz-2)	0.4498	0.0206	0.4037	0.0080
<i>Pax1</i>	similar to Paired box protein Pax-1	0.4497	0.0413	0.3510	0.0145
<i>Epo</i>	erythropoietin	0.4495	0.0064	0.4244	0.0021
<i>Cldn6</i>	similar to Claudin-6 (Skullin)	0.4495	0.0014	0.4651	0.0012
<i>Fam71a</i>	hypothetical protein	0.4494	0.0096	0.5219	0.0374
<i>Rgd1562683</i>	hypothetical protein	0.4493	0.0074	0.5410	0.0274
<i>Loc688638</i>	hypothetical protein	0.4490	0.0143	0.6640	0.0490
<i>Hspa1a</i>	heat shock 70kD protein 1A	0.4484	0.0089	0.4484	0.0342

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Col6a6</i>	similar to alpha 3 type VI collagen isoform 1 precursor	0.4483		0.0352	0.4923	0.0355
<i>Loc683156</i>	similar to testicular serine protease 2 (predicted)	0.4478		0.0413	0.3323	0.0095
<i>Tmem79</i>	hypothetical protein LOC310626	0.4476		0.0219	0.5790	0.0215
<i>Loc299282</i>	serine protease inhibitor 2a	0.4476		0.0023	0.4371	0.0050
<i>Loc687309</i>	hypothetical protein	0.4474		0.0113	0.4205	0.0046
<i>Clrn3</i>	transmembrane protein 12	0.4474		0.0318	0.4760	0.0136
<i>Mpo</i>	similar to Myeloperoxidase precursor (MPO)	0.4470		0.0191	0.5550	0.0255
<i>Pax7</i>	similar to paired box gene 7	0.4467		0.0405	0.4474	0.0285
<i>Tmco5a</i>	hypothetical protein	0.4466		0.0230	0.4730	0.0140
<i>Rgd1562433</i>	hypothetical protein LOC499222	0.4464		0.0258	0.4142	0.0060
<i>Krt84</i>	type II keratin Kb24	0.4459		0.0473	0.4134	0.0172
<i>Hoxa6</i>	similar to Homeobox protein Hox-A6 (Hox-1.2) (M5-4)	0.4458		0.0243	0.5020	0.0163
<i>Tac4</i>	tachykinin 4	0.4457		0.0059	0.5521	0.0278
<i>Rag1</i>	similar to V(D)J recombination-activating protein 1 (RAG-1)	0.4457		0.0282	0.4129	0.0113
<i>Tp63</i>	transformation related protein 63	0.4452		0.0421	0.3968	0.0310
<i>Loc679312</i>	similar to beta tubulin 1, class VI	0.4449		0.0029	0.5556	0.0058
<i>Olr1572</i>	similar to olfactory receptor Olr1768	0.4449		0.0220	0.5106	0.0180
<i>Loc689561</i>	hypothetical protein	0.4444		0.0076	0.4063	0.0037
<i>Rgd1565502</i>	hypothetical protein	0.4443		0.0314	0.4037	0.0046
<i>Cldn4</i>	claudin 4	0.4443		0.0160	0.4677	0.0238
<i>Etv3l</i>	similar to ets variant gene 3	0.4438		0.0148	0.4391	0.0129

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Cd19</i>	similar to B-lymphocyte antigen CD19 precursor (B-lymphocyte surface antigen B4) (Leu-12) (Differentiation antigen CD19)	0.4434	0.0049	0.3900	0.0116
<i>Nkx1-2</i>	similar to NK1 transcription factor-related protein 2 (Homeobox protein SAX-1) (NKX-1.1)	0.4415	0.0034	0.4826	0.0044
<i>Chrdl2</i>	similar to chordin-like 2	0.4415	0.0105	0.4341	0.0054
<i>Xkr7</i>	XK-related protein 7	0.4415	0.0419	0.4292	0.0495
<i>Slc34a3</i>	solute carrier family 34 (sodium phosphate), member 3	0.4413	0.0262	0.4150	0.0151
<i>Loc691037</i>	similar to zinc finger, matrin type 1 isoform 3	0.4412	0.0083	0.5343	0.0319
<i>Loc680804</i>	hypothetical protein	0.4408	0.0133	0.4539	0.0050
<i>Rgd1564142</i>	similar to chromosome 10 open reading frame 64	0.4407	0.0049	0.5764	0.0174
<i>Rgd1559662</i>	similar to implantation serine protease 2	0.4404	0.0069	0.5414	0.0076
<i>Slc5a9</i>	similar to solute carrier family 5 (sodium/glucose cotransporter), member 9	0.4403	0.0201	0.4256	0.0252
<i>Rgd1562428</i>	similar to Rho GTPase activating protein 18	0.4401	0.0261	0.4003	0.0202
<i>Cfc1</i>	similar to cripto, FRL-1, cryptic family 1	0.4401	0.0060	0.3783	0.0105
<i>Itgb7</i>	similar to Integrin beta-7 precursor (Integrin beta-P) (M290 IEL antigen)	0.4400	0.0316	0.4582	0.0125
<i>Loc688398</i>	hypothetical protein	0.4400	0.0475	0.4278	0.0381
<i>Cblc</i>	Casitas B-lineage lymphoma c	0.4398	0.0022	0.3377	0.0014
<i>Ovol3</i>	similar to OVO-like 1 binding protein	0.4395	0.0094	0.3861	0.0020
<i>Slc5a4b</i>	similar to solute carrier family 5 (low affinity glucose cotransporter), member 4	0.4393	0.0127	0.5515	0.0273

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Bpil2</i>	similar to bactericidal/permeability-increasing protein-like 2	0.4390		0.0314	0.4391	0.0261
<i>Prss8</i>	protease, serine, 8 (prostasin)	0.4388		0.0241	0.4495	0.0236
<i>Ubqlnl</i>	hypothetical protein LOC293287	0.4385		0.0133	0.4415	0.0070
<i>Loc682667</i>	hypothetical protein	0.4384		0.0112	0.5028	0.0168
<i>Tnfaip8</i>	similar to TNF-induced protein	0.4383		0.0333	0.4475	0.0236
<i>Klk9</i>	similar to kallikrein 9 homolog	0.4383		0.0318	0.5267	0.0424
<i>Nalp5</i>	similar to NACHT-, LRR- and PYD-containing protein 5 (Maternal antigen that embryos require) (Mater protein) (Ooplasm-specific protein 1) (OP1)	0.4381		0.0345	0.5089	0.0122
<i>Pax1</i>	similar to Paired box protein Pax-1	0.4381		0.0090	0.3423	0.0040
<i>Tssk4</i>	similar to testis-specific serine kinase 4	0.4371		0.0256	0.3707	0.0144
<i>Pkdrej</i>	similar to Polycystic kidney disease and receptor for egg jelly-related protein precursor (PKD and REJ homolog)	0.4366		0.0094	0.5006	0.0159
<i>Loc501274</i>	hypothetical protein	0.4365		0.0474	0.5036	0.0310
<i>Loc679885</i>	similar to N-myc downstream regulated gene 3	0.4362		0.0271	0.4924	0.0320
<i>Mrgprg</i>	MAS-related G-protein coupled receptor, member G	0.4357		0.0133	0.4136	0.0052
<i>Sema6c</i>	semaphorin 6c	0.4353		0.0141	0.5353	0.0352
<i>Tshr</i>	thyroid stimulating hormone, receptor	0.4347		0.0419	0.4192	0.0106
<i>Gsdma</i>	similar to gasdermin 1	0.4344		0.0024	0.4550	0.0058
<i>Gml</i>	similar to Glycosyl-phosphatidylinositol-anchored molecule-like protein precursor	0.4343		0.0003	0.3011	0.0056
<i>Shf</i>	similar to SHB (Src homology 2 domain containing) adaptor protein B	0.4342		0.0143	0.5080	0.0115

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Tnfrsf14</i>	tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator)	0.4341		0.0053	0.5435	0.0193
<i>Loc685242</i>	hypothetical protein	0.4340		0.0281	0.3911	0.0187
<i>Rgd1311676</i>	similar to Tescalcin (TSC)	0.4339		0.0100	0.4655	0.0147
<i>Loc683598</i>	similar to Uromodulin precursor (Tamm-Horsfall urinary glycoprotein) (THP)	0.4337		0.0236	0.4239	0.0194
<i>Arse</i>	arylsulfatase E	0.4336		0.0073	0.4660	0.0069
<i>Cacna2d4</i>	similar to voltage-gated calcium channel alpha(2)delta-4 subunit isoform 1	0.4333		0.0457	0.4646	0.0446
<i>Loc680160</i>	similar to keratin associated protein 4-7 isoform 2	0.4331		0.0416	0.5095	0.0234
<i>Elf5</i>	similar to ETS-related transcription factor Elf-5 (E74-like factor 5)	0.4321		0.0206	0.4259	0.0237
<i>Loc680913</i>	hypothetical protein	0.4321		0.0176	0.3788	0.0272
<i>Slc39a2</i>	similar to Zinc transporter ZIP2 (Eti-1) (6A1) (hZIP2) (Solute carrier family 39 member 2)	0.4319		0.0205	0.3933	0.0069
<i>Ier2</i>	immediate early response 2	0.4317		0.0056	0.4716	0.0149
<i>Cdkn2a</i>	cyclin dependent kinase inhibitor 2A	0.4309		0.0222	0.4558	0.0205
<i>Loc687797</i>	similar to tumor suppressor candidate 5	0.4303		0.0136	0.3858	0.0043
<i>Loc690013</i>	hypothetical protein	0.4301		0.0420	0.3554	0.0222
<i>Loc688978</i>	hypothetical protein	0.4300		0.0439	0.4354	0.0085
<i>Loc679689</i>	hypothetical protein	0.4299		0.0075	0.2003	0.0011
<i>Loc690435</i>	hypothetical protein LOC683871	0.4298		0.0147	0.3215	0.0017
<i>Dlk1</i>	delta-like 1	0.4291		0.0145	0.4243	0.0077
<i>Loc498974</i>	similar to kinesin family member 7	0.4285		0.0195	0.4655	0.0188
<i>Rbm35b</i>	similar to fusilli CG8205-PD, isoform D	0.4285		0.0079	0.4947	0.0100

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Kcne1</i>	potassium voltage-gated channel, Isk-related subfamily, member 1	0.4284		0.0107	0.3905	0.0038
<i>Prr19</i>	hypothetical protein	0.4282		0.0023	0.4005	0.0031
<i>Rhox7</i>	hypothetical protein LOC298353	0.4282		0.0213	0.4789	0.0062
<i>Hcr</i>	HCR (a-helix coiled-coil rod homolog)	0.4280		0.0020	0.5373	0.0102
<i>Rgd1562485</i>	similar to Vigilin (High density lipoprotein-binding protein) (HDL-binding protein)	0.4280		0.0234	0.4400	0.0295
<i>Loc691596</i>	hypothetical protein	0.4275		0.0071	0.4621	0.0068
<i>Azgp1</i>	alpha-2-glycoprotein 1, zinc	0.4274		0.0108	0.4274	0.0038
<i>Rgd1563254</i>	hypothetical protein	0.4272		0.0127	0.3874	0.0091
<i>Clec2h</i>	similar to osteoclast inhibitory lectin isoform 1	0.4269		0.0171	0.4239	0.0302
<i>Loc682408</i>	similar to corneodesmosin isoform 1	0.4265		0.0086	0.4803	0.0083
<i>Rkhd1</i>	similar to RING finger and KH domain-containing protein 1	0.4262		0.0139	0.4133	0.0115
<i>Foxb1</i>	forkhead box B1	0.4262		0.0346	0.3497	0.0158
<i>Fxyd4</i>	corticosteroid-induced protein precursor	0.4261		0.0089	0.5282	0.0095
<i>Loc684470</i>	similar to leukocyte immunoglobulin-like receptor subfamily A member 5 isoform 1	0.4260		0.0207	0.4513	0.0047
<i>Wnt6</i>	similar to wntless-related MMTV integration site 6	0.4260		0.0180	0.4401	0.0153
<i>Lbxcor1</i>	similar to Ladybird homeobox corepressor 1	0.4259		0.0197	0.4155	0.0395
<i>Med26</i>	similar to transcriptional co-activator CRSP7 homolog	0.4253		0.0224	0.5011	0.0373
<i>Loc682360</i>	hypothetical protein	0.4253		0.0100	0.4234	0.0094
<i>Emid1</i>	similar to EMI domain containing 1	0.4250		0.0318	0.4223	0.0409
<i>Tssk2</i>	testis-specific serine kinase 2	0.4250		0.0082	0.3684	0.0029

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ltb4r</i>	leukotriene B4 receptor	0.4239		0.0165	0.3342	0.0044
<i>Loc680637</i>	hypothetical protein	0.4236		0.0341	0.5035	0.0373
<i>Krt19</i>	keratin complex 1, acidic, gene 19	0.4234		0.0005	0.3845	0.0493
<i>Slc6a2</i>	solute carrier family 6 member 2	0.4233		0.0149	0.4394	0.0076
<i>Slc6a16</i>	similar to Orphan sodium- and chloride-dependent neurotransmitter transporter NTT5 (Solute carrier family 6 member 16)	0.4232		0.0118	0.4806	0.0192
<i>Adam30</i>	similar to a disintegrin and metalloproteinase domain 30	0.4232		0.0127	0.4481	0.0327
<i>Slc30a2</i>	solute carrier family 30, member 2 isoform 2	0.4230		0.0315	0.4510	0.0259
<i>Loc689861</i>	hypothetical protein	0.4229		0.0265	0.4794	0.0245
<i>Slc4a1</i>	solute carrier family 4, member 1	0.4228		0.0298	0.3805	0.0121
<i>Dkk1</i>	similar to soggy 1	0.4226		0.0337	0.4529	0.0231
<i>Loc684940</i>	similar to CG14535-PA	0.4225		0.0455	0.3722	0.0199
<i>Gpr1</i>	G protein-coupled receptor 1	0.4225		0.0305	0.4178	0.0281
<i>Rgd1561834</i>	similar to Iroquois-class homeodomain protein IRX-2 (Iroquois homeobox protein 2) (Homeodomain protein IRXA2)	0.4217		0.0364	0.4433	0.0322
<i>Musk</i>	skeletal muscle receptor tyrosine kinase	0.4212		0.0051	0.3732	0.0016
<i>Pla2g4f</i>	similar to cytosolic phospholipase A2 zeta	0.4210		0.0086	0.4923	0.0131
<i>Wnt6</i>	similar to wntless-related MMTV integration site 6	0.4207		0.0154	0.5595	0.0454
<i>Aox3</i>	aldehyde oxidase 3	0.4207		0.0036	0.4890	0.0036
<i>Hand1</i>	heart and neural crest derivatives expressed transcript 1	0.4204		0.0256	0.3586	0.0060
<i>Loc680854</i>	hypothetical protein	0.4201		0.0081	0.5038	0.0087
<i>Hoxd3</i>	similar to homeobox D3	0.4200		0.0292	0.4357	0.0111

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687033</i>	hypothetical protein	0.4195		0.0240	0.4953	0.0213
<i>Fgf3</i>	fibroblast growth factor 3	0.4192		0.0119	0.4721	0.0196
<i>Gimap4</i>	GTPase, IMAP family member 4	0.4191		0.0342	0.5606	0.0085
<i>Rgd1305807</i>	hypothetical protein LOC298077	0.4189		0.0022	0.4617	0.0025
<i>Rgd1564046</i>	hypothetical protein	0.4186		0.0231	0.5401	0.0373
<i>Kcnmb1</i>	potassium large conductance calcium-activated channel, subfamily M, beta member 1	0.4184		0.0139	0.4665	0.0088
<i>Loc686738</i>	similar to RIKEN cDNA 4930504O13	0.4184		0.0153	0.4221	0.0096
<i>Wnt8a</i>	similar to Protein Wnt-8a precursor (Wnt-8d) (Stimulated by retinoic acid protein 11) (Wnt-8)	0.4182		0.0396	0.4703	0.0485
<i>Loc681620</i>	hypothetical protein	0.4182		0.0334	0.4025	0.0318
<i>Rgd1564064</i>	similar to Glyceraldehyde-3-phosphate dehydrogenase (GAPDH)	0.4181		0.0496	0.3654	0.0187
<i>Gsbs</i>	G substrate	0.4180		0.0093	0.4841	0.0351
<i>Loc683146</i>	hypothetical protein	0.4180		0.0116	0.4664	0.0371
<i>Loc682603</i>	similar to keratinocytes proline-rich protein	0.4180		0.0180	0.5015	0.0368
<i>Loc688579</i>	hypothetical protein	0.4176		0.0162	0.3944	0.0042
<i>Lao1</i>	similar to L-amino acid oxidase 1	0.4176		0.0145	0.5216	0.0313
<i>Cyp2b31</i>	similar to Cytochrome P450 2B12 (CYPIB12)	0.4171		0.0408	0.3994	0.0126
<i>Prss29</i>	similar to implantation serine protease 2	0.4168		0.0234	0.4714	0.0248
<i>Rgd1562641</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.4168		0.0487	0.6227	0.0367
<i>Loc686046</i>	hypothetical protein	0.4164		0.0386	0.4015	0.0208
<i>Il12b</i>	interleukin-12 p40 precursor	0.4164		0.0009	0.6358	0.0289

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Col9a3</i>	similar to procollagen, type IX, alpha 3	0.4159		0.0234	0.5863	0.0394
<i>Slamf9</i>	similar to SLAM family member 9 precursor	0.4156		0.0107	0.3580	0.0014
<i>Fbxw12</i>	similar to F-box and WD-40 domain protein 12	0.4155		0.0201	0.4527	0.0316
<i>Loc684621</i>	germinal histone H4	0.4154		0.0245	0.4863	0.0252
<i>Vwce</i>	similar to cysteine rich BMP regulator 2 (chordin like)	0.4153		0.0316	0.4043	0.0296
<i>Rgd1304953</i>	similar to SSTK-interacting protein	0.4151		0.0025	0.4655	0.0021
<i>Loc690449</i>	hypothetical protein	0.4147		0.0496	0.3868	0.0177
<i>Rgd1565598</i>	similar to serine/threonine kinase	0.4147		0.0095	0.5075	0.0220
<i>Hoxd3</i>	similar to homeobox D3	0.4146		0.0080	0.5602	0.0167
<i>Rnf222</i>	hypothetical protein	0.4145		0.0500	0.3965	0.0235
<i>Loc681393</i>	similar to kinesin family member 18A	0.4144		0.0487	0.3679	0.0338
<i>Loc691150</i>	similar to PRAME family member 5	0.4144		0.0231	0.4134	0.0351
<i>Snai3</i>	similar to snail homolog 3	0.4142		0.0462	0.4536	0.0200
<i>Loc498933</i>	hypothetical protein LOC498933	0.4141		0.0099	0.4296	0.0091
<i>Loc500990</i>	hypothetical protein LOC500990	0.4140		0.0008	0.6230	0.0442
<i>Ccdc105</i>	hypothetical protein LOC500800	0.4138		0.0078	0.3780	0.0046
<i>Loc686036</i>	hypothetical protein	0.4137		0.0362	0.3588	0.0197
<i>Bnc2</i>	similar to Zinc finger protein basoonuclin-2	0.4136		0.0114	0.5036	0.0192
<i>Sp7</i>	Sp7 transcription factor isoform 1	0.4134		0.0077	0.5131	0.0201
<i>Cenpa</i>	similar to Centromere protein A (CENP-A) (Centromere autoantigen A)	0.4130		0.0212	0.5200	0.0114
<i>Ccdc75</i>	similar to CG10053-PA	0.4129		0.0214	0.3302	0.0056
<i>Spata19</i>	spermatogenic specific-gene1	0.4121		0.0197	0.5404	0.0287
<i>Klk7</i>	kallikrein 7	0.4121		0.0287	0.4047	0.0139
<i>Ltb4r2</i>	leukotriene B4 receptor 2	0.4115		0.0123	0.4145	0.0065

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc363320</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.4113		0.0303	0.5227	0.0477
<i>Pla2g10</i>	phospholipase A2, group 10	0.4113		0.0190	0.4099	0.0204
<i>Il4</i>	interleukin 4	0.4110		0.0015	0.3638	0.0042
<i>Sox14</i>	similar to Transcription factor SOX-14	0.4106		0.0174	0.4961	0.0208
<i>Rgd1305725</i>	hypothetical protein	0.4105		0.0335	0.3714	0.0493
<i>Rgd1561292</i>	similar to Interleukin-22 precursor (IL-22) (IL-10-related T-cell-derived-inducible factor) (IL-TIF) (IL-TIF alpha) (Interleukin-22a) (IL-22a)	0.4103		0.0127	0.4888	0.0072
<i>Tnp1</i>	transition protein 1	0.4100		0.0132	0.4620	0.0102
<i>Loc363320</i>	hypothetical protein	0.4098		0.0153	0.3061	0.0070
<i>Gnat2</i>	similar to Guanine nucleotide-binding protein G(t), alpha-2 subunit (Transducin alpha-2 chain)	0.4097		0.0154	0.6402	0.0490
<i>Apcdd1</i>	similar to adenomatosis polyposis coli down-regulated 1	0.4097		0.0289	0.4219	0.0246
<i>Tas1r3</i>	taste receptor, type 1, member 3	0.4097		0.0139	0.4576	0.0377
<i>Rgd1562089</i>	hypothetical protein	0.4093		0.0252	0.3773	0.0083
<i>Ankrd58</i>	similar to CG10632-PA	0.4090		0.0046	0.4556	0.0087
<i>Loc498664</i>	hypothetical protein LOC498664	0.4090		0.0296	0.3326	0.0133
<i>Serpina3k</i>	serine protease inhibitor 2b	0.4089		0.0161	0.4214	0.0037
<i>Pabpn1</i>	similar to poly(A)binding protein nuclear-like 1	0.4085		0.0119	0.3963	0.0030
<i>Loc686251</i>	hypothetical protein	0.4085		0.0250	0.4369	0.0206
<i>Nupr1</i>	p8 protein	0.4084		0.0128	0.4846	0.0095
<i>Loc689926</i>	hypothetical protein	0.4083		0.0309	0.5426	0.0410

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rhbg</i>	Rh type B glycoprotein	0.4081		0.0171	0.5063	0.0479
<i>Loc686220</i>	similar to Programmed cell death protein 5 (TFAR19 protein) (TF-1 cell apoptosis related gene 19 protein)	0.4080		0.0116	0.4535	0.0289
<i>Lbx1</i>	ladybird homeobox homolog 1	0.4079		0.0286	0.4385	0.0183
<i>Ctsg</i>	similar to Cathepsin G precursor (Vimentin-specific protease) (VSP)	0.4079		0.0341	0.3388	0.0108
<i>Nt5c1b</i>	retinol dehydrogenase 14 (all-trans and 9-cis)	0.4077		0.0267	0.4842	0.0243
<i>Irf4</i>	similar to Interferon regulatory factor 4 (IRF-4) (Lymphocyte-specific interferon regulatory factor) (LSIRF) (NF-EM5) (PU.1 interaction partner) (Transcriptional activator PIP)	0.4075		0.0176	0.5628	0.0153
<i>Pou5f1</i>	POU domain, class 5, transcription factor 1	0.4075		0.0365	0.4199	0.0236
<i>Tert</i>	telomerase catalytic subunit	0.4073		0.0483	0.5105	0.0455
<i>Rgd1563350</i>	similar to Fatty acid-binding protein, epidermal (E-FABP) (Cutaneous fatty acid-binding protein) (C-FABP) (DA11)	0.4072		0.0249	0.4265	0.0084
<i>Rgd1562428</i>	similar to Rho GTPase activating protein 18	0.4071		0.0144	0.4313	0.0273
<i>Loc685560</i>	similar to monoacylglycerol O-acyltransferase 2	0.4069		0.0035	0.4543	0.0039
<i>Fam83e</i>	hypothetical protein	0.4069		0.0181	0.3954	0.0151
<i>Rgd1305207</i>	hypothetical protein LOC366990	0.4068		0.0151	0.4255	0.0133
<i>Loc680894</i>	similar to putative pheromone receptor (Go-VN4)	0.4067		0.0190	0.4751	0.0315
<i>Il20ra</i>	similar to interleukin 20 receptor, alpha	0.4066		0.0198	0.5190	0.0197

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc682787</i>	similar to SMT3 suppressor of mif two 3 homolog 2	0.4065		0.0158	0.3191	0.0030
<i>Cstf2t</i>	similar to cleavage stimulation factor, 3 pre-RNA subunit 2, tau	0.4064		0.0059	0.4739	0.0088
<i>Ermap</i>	similar to erythroblast membrane-associated protein	0.4063		0.0054	0.4793	0.0084
<i>Rab44</i>	similar to RAS and EF hand domain containing	0.4063		0.0058	0.4732	0.0042
<i>Loc684621</i>	similar to germinal histone H4 gene	0.4060		0.0373	0.4720	0.0186
<i>Muc20</i>	similar to mucin 20	0.4056		0.0233	0.4614	0.0132
<i>Hmgb2</i>	similar to High mobility group protein 2 (HMG-2)	0.4055		0.0127	0.4693	0.0095
<i>Scn5a</i>	voltage-gated sodium channel type V alpha	0.4051		0.0347	0.5549	0.0055
<i>Gcm1</i>	glial cells missing homolog 1	0.4048		0.0062	0.3430	0.0053
<i>Lor</i>	similar to Loricrin	0.4046		0.0135	0.4347	0.0165
<i>Ahnak</i>	similar to AHNAK nucleoprotein isoform 2 isoform 2	0.4034		0.0189	0.5544	0.0152
<i>Kirrel</i>	nephrin 1	0.4034		0.0089	0.6119	0.0332
<i>Klk1b21</i>	kallikrein 6 (predicted)	0.4030		0.0144	0.4292	0.0145
<i>Apol2</i>	similar to apolipoprotein L, 3 (predicted)	0.4028		0.0017	0.4661	0.0020
<i>Sh2d2a</i>	SH2 domain protein 2A	0.4027		0.0173	0.4062	0.0077
<i>Ace3</i>	similar to angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 isoform 1	0.4025		0.0029	0.5585	0.0116
<i>Loc687991</i>	similar to golgi autoantigen, golgin subfamily a-like	0.4025		0.0402	0.3749	0.0217
<i>Loc682587</i>	hypothetical protein	0.4025		0.0133	0.3871	0.0106
<i>Rgd1563782</i>	hypothetical protein	0.4024		0.0434	0.4287	0.0259
<i>Loc683741</i>	hypothetical protein	0.4023		0.0181	0.4535	0.0207

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Obox6</i>	similar to oocyte specific homeobox 6	0.4019		0.0345	0.5129	0.0293
<i>Nxph4</i>	neurexophilin 4	0.4017		0.0043	0.3957	0.0233
<i>Loc688847</i>	similar to CG14852-PA	0.4016		0.0320	0.4201	0.0153
<i>Loc689983</i>	hypothetical protein	0.4016		0.0462	0.4658	0.0341
<i>Calml3</i>	calmodulin-like 3	0.4015		0.0143	0.4549	0.0215
<i>Gm672</i>	similar to Protein KIAA0427	0.4010		0.0241	0.5233	0.0476
<i>Cyp4f18</i>	cytochrome P450, family 4, subfamily f, polypeptide 18	0.4009		0.0231	0.3981	0.0125
<i>Fcrl3</i>	similar to Fc receptor-like protein 5	0.4008		0.0354	0.4005	0.0051
<i>Tgm4</i>	transglutaminase 4 (prostate)	0.4008		0.0291	0.4185	0.0118
<i>Slc22a18</i>	similar to tumor suppressing subtransferable candidate 5 isoform 3	0.4006		0.0271	0.3369	0.0238
<i>Loc684999</i>	similar to keratinocytes proline-rich protein	0.4005		0.0136	0.4208	0.0264
<i>Tnfrsf10b</i>	similar to Tumor necrosis factor receptor superfamily member 10B precursor (Death receptor 5) (MK)	0.4005		0.0148	0.3251	0.0027
<i>Loc680708</i>	hypothetical protein	0.4005		0.0384	0.4433	0.0362
<i>Krt86</i>	type II keratin Kb26	0.4003		0.0125	0.4502	0.0182
<i>Apoa4</i>	apolipoprotein A-IV	0.4002		0.0129	0.4843	0.0328
<i>Loc683507</i>	hypothetical protein	0.4002		0.0282	0.4390	0.0265
<i>Cdc14a</i>	similar to Dual specificity protein phosphatase CDC14A (CDC14 cell division cycle 14 homolog A) isoform 1	0.4001		0.0164	0.3719	0.0155
<i>Muc6</i>	similar to mucin 6, gastric	0.4000		0.0396	0.5265	0.0397
<i>Sectm1b</i>	secreted and transmembrane 1B	0.3997		0.0106	0.4560	0.0181
<i>Olr1088</i>	similar to Olfactory receptor 10T2 (Olfactory receptor OR1-3)	0.3996		0.0221	0.4305	0.0154

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Insl3</i>	insulin-like 3	0.3994		0.0020	0.5327	0.0238
<i>Trem1</i>	similar to triggering receptor expressed on myeloid cells 1	0.3990		0.0131	0.4303	0.0159
<i>Wfdc9</i>	WAP four-disulfide core domain 9	0.3989		0.0437	0.4617	0.0182
<i>S100a5</i>	similar to S100 calcium-binding protein A5 (S-100D protein)	0.3987		0.0349	0.3832	0.0197
<i>Rgd1306556</i>	similar to tankyrase 1-binding protein of 182 kDa	0.3987		0.0109	0.5429	0.0306
<i>Slc22a7</i>	solute carrier family 22 member 7	0.3985		0.0021	0.5098	0.0266
<i>Rgd1560050</i>	similar to heparan sulfate 6-O-sulfotransferase 3	0.3979		0.0374	0.4411	0.0214
<i>Tlr9</i>	toll-like receptor 9	0.3978		0.0047	0.2995	0.0023
<i>Slc14a2</i>	solute carrier family 14 (urea transporter), member 2 isoform 1	0.3975		0.0340	0.4004	0.0166
<i>Rgd1561431</i>	similar to Homeobox protein Hox-A3 (Hox-1.5) (MO-10)	0.3975		0.0240	0.4319	0.0236
<i>Loc684368</i>	similar to eukaryotic translation initiation factor 4e 1a	0.3972		0.0107	0.4738	0.0177
<i>Rab1b</i>	similar to Ras-related protein Rab-1B	0.3972		0.0291	0.3801	0.0255
<i>Gml</i>	similar to Glycosyl-phosphatidylinositol-anchored molecule-like protein precursor	0.3965		0.0206	0.2776	0.0245
<i>Loc691063</i>	hypothetical protein	0.3961		0.0138	0.4716	0.0182
<i>Loc680734</i>	similar to Ankyrin-2 (Brain ankyrin) (Ankyrin B) (Ankyrin, nonerythroid)	0.3956		0.0109	0.4511	0.0100
<i>Loc683601</i>	similar to mucin 17	0.3952		0.0110	0.4962	0.0224
<i>Rgd1565045</i>	similar to carboxylesterase isoenzyme gene	0.3950		0.0246	0.3609	0.0104
<i>Rbp1</i>	retinol binding protein 1, cellular	0.3949		0.0109	0.5169	0.0426
<i>Bsx</i>	similar to brain specific homeobox	0.3947		0.0378	0.3629	0.0209

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc690389</i>	hypothetical protein	0.3945		0.0366	0.3974	0.0254
<i>Vil1</i>	similar to Villin-1	0.3945		0.0386	0.4312	0.0226
<i>Cxcl3</i>	cytokine-induced neutrophil chemoattractant-2	0.3945		0.0181	0.4408	0.0453
<i>Rt1-Ec2</i>	RT1 class Ib gene RT1Aw2	0.3943		0.0187	0.3959	0.0146
<i>Gdf5</i>	similar to Growth/differentiation factor 5 precursor (GDF-5)	0.3938		0.0095	0.4692	0.0120
<i>Rgd1561113</i>	similar to Hypothetical UPF0184 protein C9orf16 homolog	0.3936		0.0054	0.5777	0.0167
<i>Klk10</i>	kallikrein 10	0.3935		0.0055	0.4738	0.0054
<i>Loc690965</i>	similar to CG17265-PA	0.3932		0.0138	0.4683	0.0141
<i>Barhl2</i>	BarH-class homeodomain transcription factor	0.3924		0.0054	0.4781	0.0169
<i>Loc689103</i>	similar to vitelliform macular dystrophy 2-like 2 isoform 1	0.3921		0.0103	0.5304	0.0371
<i>Fat2</i>	fat tumor suppressor homolog 2	0.3921		0.0044	0.4513	0.0124
<i>Muc4</i>	similar to mucin 4	0.3918		0.0056	0.3351	0.0104
<i>Rgd1566043</i>	similar to nuclear protein in testis	0.3917		0.0170	0.3638	0.0127
<i>Bmp10</i>	bone morphogenetic protein 10	0.3916		0.0091	0.5032	0.0234
<i>Fam154a</i>	hypothetical protein	0.3909		0.0489	0.4079	0.0416
<i>Sdc3</i>	syndecan 3	0.3909		0.0131	0.4580	0.0368
<i>Wt1</i>	wilms tumor 1	0.3908		0.0462	0.3448	0.0106
<i>Lyzl1</i>	similar to lysozyme-like protein 2	0.3896		0.0130	0.5332	0.0136
<i>Loc499886</i>	hypothetical protein LOC499886	0.3895		0.0124	0.3963	0.0051
<i>Hmx2</i>	similar to Homeobox protein HMX2 (Homeobox protein Nkx-5.2)	0.3894		0.0025	0.5017	0.0069
<i>Loc499718</i>	hypothetical protein	0.3894		0.0062	0.3993	0.0111

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ccr8</i>	similar to C-C chemokine receptor type 8 (C-C CKR-8) (CC-CKR-8) (CCR-8)	0.3894		0.0095	0.4772	0.0269
<i>Zbtb34</i>	similar to Zinc finger and BTB domain-containing protein 34	0.3893		0.0073	0.5433	0.0158
<i>Loc681303</i>	similar to tumor endothelial marker 8 isoform 1 precursor	0.3892		0.0134	0.5020	0.0050
<i>Loc680348</i>	similar to uroplakin IIIb	0.3890		0.0146	0.3870	0.0085
<i>Loc299271</i>	serine proteinase inhibitor HongrES1	0.3889		0.0140	0.4676	0.0126
<i>Tm4sf20</i>	similar to transmembrane 4 L six family member 20	0.3874		0.0279	0.3978	0.0053
<i>Loc689983</i>	hypothetical protein	0.3872		0.0450	0.4989	0.0478
<i>Zbtb32</i>	similar to repressor of GATA	0.3871		0.0258	0.2970	0.0122
<i>Hmcn2</i>	similar to hemicentin 1 isoform 1	0.3869		0.0113	0.4612	0.0108
<i>Loc690389</i>	hypothetical protein	0.3867		0.0159	0.4323	0.0150
<i>Slc39a5</i>	similar to solute carrier family 39 (metal ion transporter), member 5	0.3866		0.0092	0.3811	0.0043
<i>Loc684774</i>	hypothetical protein	0.3866		0.0187	0.4098	0.0090
<i>Svep1</i>	similar to sushi, von Willebrand factor type A, EGF and pentraxin domain containing 1	0.3865		0.0126	0.3649	0.0072
<i>Rgd1564296</i>	hypothetical protein	0.3865		0.0461	0.3426	0.0355
<i>Loc690279</i>	similar to ankyrin repeat and kinase domain containing 1	0.3864		0.0132	0.5614	0.0479
<i>Pax3</i>	similar to Paired box protein Pax-3	0.3864		0.0005	0.3720	0.0002
<i>Cyp2ab1</i>	similar to cytochrome P450, family 2, subfamily J, polypeptide 2, B	0.3862		0.0261	0.3452	0.0241
<i>Pla2g1b</i>	phospholipase A2, group IB	0.3862		0.0007	0.5684	0.0148
<i>Rgd1560481</i>	similar to fusilli CG8205-PC, isoform C	0.3862		0.0128	0.4241	0.0120
<i>Loc688861</i>	hypothetical protein	0.3860		0.0209	0.3925	0.0053

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc501274</i>	hypothetical protein	0.3858		0.0140	0.5649	0.0283
<i>Fam110c</i>	hypothetical protein LOC500638	0.3857		0.0130	0.4974	0.0169
<i>Prnd</i>	similar to prion protein dublet	0.3855		0.0355	0.3753	0.0190
<i>Loc690529</i>	hypothetical protein	0.3854		0.0333	0.3926	0.0180
<i>Rgd1561499</i>	similar to ribonuclease/angiogenin inhibitor 1	0.3847		0.0285	0.2834	0.0008
<i>Sp5</i>	similar to trans-acting transcription factor 5	0.3844		0.0087	0.4243	0.0270
<i>Aqp3</i>	aquaporin 3	0.3839		0.0272	0.3624	0.0120
<i>Optc</i>	similar to opticin	0.3838		0.0064	0.5551	0.0256
<i>Loc687426</i>	similar to G protein-coupled receptor 133	0.3837		0.0082	0.4640	0.0312
<i>Ucn2</i>	urocortin 2	0.3831		0.0246	0.4186	0.0089
<i>Loc690319</i>	similar to Alpha-1-antitrypsin-related protein precursor	0.3831		0.0371	0.3354	0.0113
<i>Fam65c</i>	similar to C27H2.3	0.3831		0.0103	0.2679	0.0029
<i>Psors1c2</i>	similar to Psoriasis susceptibility 1 candidate gene 2 protein homolog precursor (SPR1 protein)	0.3828		0.0232	0.4210	0.0210
<i>Gck</i>	glucokinase	0.3827		0.0036	0.3286	0.0045
<i>Tacstd2</i>	tumor-associated calcium signal transducer 2	0.3825		0.0054	0.3091	0.0060
<i>Loc684803</i>	similar to Ribosomal protein S6 kinase alpha 4 (Nuclear mitogen-and stress-activated protein kinase 2) (90 kDa ribosomal protein S6 kinase 4) (RSK-like protein kinase) (RLSK)	0.3823		0.0067	0.4026	0.0055
<i>Loc683581</i>	similar to ADP-ribosylation factor 7	0.3822		0.0283	0.5243	0.0467

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Foxh1</i>	similar to Forkhead box protein H1 (Forkhead activin signal transducer 1) (Fast-1) (Forkhead activin signal transducer 2) (Fast-2)	0.3820	0.0138	0.4496	0.0169
<i>Loc681077</i>	similar to testis expressed gene 101	0.3819	0.0298	0.3644	0.0173
<i>Fam19a5</i>	similar to TFA5 protein	0.3818	0.0307	0.3505	0.0108
<i>Slc7a15</i>	similar to aromatic-preferring amino acid transporter isoform 2	0.3817	0.0339	0.3590	0.0147
<i>Piwil1</i>	similar to piwi like homolog 1	0.3816	0.0133	0.4264	0.0181
<i>Runx3</i>	runt-related transcription factor 3	0.3813	0.0047	0.3760	0.0022
<i>Wdr88</i>	similar to CG3436-PA, isoform A	0.3812	0.0335	0.3770	0.0216
<i>Loc679902</i>	hypothetical protein	0.3811	0.0289	0.4089	0.0285
<i>Lbx2</i>	similar to ladybird homeobox homolog 2	0.3808	0.0111	0.4206	0.0140
<i>Cxcl13</i>	hypothetical protein LOC498335	0.3803	0.0292	0.4268	0.0201
<i>Prss21</i>	protease, serine, 21	0.3803	0.0149	0.4665	0.0242
<i>Loc689405</i>	similar to interferon, alpha-inducible protein 27-like	0.3801	0.0394	0.3819	0.0166
<i>Pdha2</i>	pyruvate dehydrogenase E1 alpha 2	0.3800	0.0070	0.6062	0.0158
<i>Loc687708</i>	hypothetical protein	0.3796	0.0060	0.4218	0.0129
<i>Ngp</i>	similar to neutrophilic granule protein	0.3794	0.0012	0.4854	0.0036
<i>Loc685621</i>	hypothetical protein	0.3791	0.0102	0.4514	0.0089
<i>Loc683116</i>	hypothetical protein	0.3791	0.0126	0.4735	0.0131
<i>Loc688186</i>	hypothetical protein	0.3787	0.0337	0.3633	0.0276
<i>Loc689769</i>	hypothetical protein	0.3787	0.0161	0.3449	0.0178
<i>Loc680348</i>	similar to uroplakin IIIb	0.3787	0.0016	0.3593	0.0002
<i>Trpm8</i>	transient receptor potential cation channel, subfamily M, member 8	0.3786	0.0129	0.3687	0.0206
<i>Loc501274</i>	hypothetical protein	0.3785	0.0360	0.4084	0.0303

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1307603</i>	similar to Glutathione S-transferase P (GST 7-7) (Chain 7) (GST class-pi)	0.3785		0.0188	0.4248	0.0317
<i>Lin28c</i>	similar to lin-28 homolog	0.3784		0.0418	0.4077	0.0185
<i>Ltf</i>	similar to Lactotransferrin precursor (Lactoferrin)	0.3783		0.0213	0.4711	0.0251
<i>Rgd1561303</i>	hypothetical protein	0.3783		0.0064	0.3712	0.0031
<i>Loc314328</i>	hypothetical protein LOC314328	0.3782		0.0180	0.3859	0.0065
<i>Loc367117</i>	hypothetical protein LOC367117	0.3778		0.0344	0.4451	0.0244
<i>Dmrt2</i>	similar to terra	0.3777		0.0326	0.3794	0.0071
<i>Cyp17a1</i>	cytochrome P450, family 17, subfamily a, polypeptide 1	0.3777		0.0129	0.3795	0.0053
<i>Rgd1562036</i>	similar to ornithine decarboxylase 1	0.3777		0.0494	0.2746	0.0466
<i>Loc691083</i>	hypothetical protein	0.3776		0.0354	0.4881	0.0190
<i>Pebp2</i>	similar to Phosphatidylethanolamine-binding protein 2 (PEBP-2)	0.3775		0.0434	0.3615	0.0335
<i>Loc690478</i>	similar to keratin associated protein 10-7	0.3774		0.0251	0.3778	0.0307
<i>lqcf1</i>	similar to IQ motif containing F1	0.3770		0.0056	0.3797	0.0032
<i>F7</i>	coagulation factor VII	0.3768		0.0103	0.4705	0.0114
<i>Loc684471</i>	similar to olfactory receptor 1394	0.3768		0.0147	0.4279	0.0237
<i>Atf1</i>	similar to Cyclic AMP-dependent transcription factor ATF-1 (Activating transcription factor 1) (TCR-ATF1)	0.3766		0.0077	0.5936	0.0387
<i>Apob48r</i>	similar to apolipoprotein B48 receptor	0.3764		0.0081	0.4354	0.0097
<i>Kbtbd5</i>	similar to kelch repeat and BTB (POZ) domain containing 5	0.3764		0.0080	0.4455	0.0166
<i>Rgd1307355</i>	similar to ZC581.1	0.3763		0.0259	0.4119	0.0222
<i>Loc682238</i>	hypothetical protein	0.3763		0.0128	0.4013	0.0155
<i>Rgd1561421</i>	similar to GTP-binding protein REM2	0.3761		0.0168	0.3732	0.0124

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc691449</i>	hypothetical protein	0.3761		0.0135	0.5337	0.0258
<i>Ccin</i>	calicin	0.3756		0.0240	0.3857	0.0255
<i>Hoxb1</i>	similar to Homeobox protein Hox-B1 (Hox-2.9)	0.3755		0.0285	0.3690	0.0324
<i>Gpr55</i>	similar to G protein-coupled receptor 55	0.3755		0.0090	0.4648	0.0097
<i>Hs1bp3</i>	similar to HS1-binding protein 3	0.3746		0.0355	0.4894	0.0463
<i>Lsm14a</i>	similar to CG10686-PA	0.3744		0.0295	0.5465	0.0470
<i>Hspb7</i>	similar to heat shock protein family, member 7 (cardiovascular)	0.3742		0.0050	0.5374	0.0273
<i>Loc684180</i>	hypothetical protein	0.3741		0.0039	0.5125	0.0350
<i>Tgm5</i>	similar to transglutaminase 5	0.3740		0.0115	0.5019	0.0226
<i>Loc691161</i>	hypothetical protein	0.3740		0.0098	0.5123	0.0215
<i>Vasp</i>	similar to Vasodilator-stimulated phosphoprotein (VASP)	0.3739		0.0303	0.4383	0.0352
<i>Alx4</i>	similar to Homeobox protein aristaless-like 4 (ALX-4)	0.3739		0.0170	0.4448	0.0199
<i>Rgd1359334</i>	hypothetical protein LOC295265	0.3737		0.0037	0.5061	0.0060
<i>Rgd1562704</i>	hypothetical protein	0.3733		0.0276	0.3819	0.0254
<i>Krt9</i>	keratin complex 1, acidic, gene 9	0.3731		0.0030	0.4805	0.0102
<i>Taar4</i>	trace-amine-associated receptor 4	0.3730		0.0440	0.4936	0.0269
<i>Loc687103</i>	hypothetical protein	0.3730		0.0276	0.4099	0.0088
<i>Abp1</i>	amiloride binding protein 1	0.3725		0.0284	0.5762	0.0334
<i>Loc689983</i>	hypothetical protein	0.3724		0.0355	0.5204	0.0381
<i>Rgd1563821</i>	hypothetical protein	0.3722		0.0362	0.3625	0.0457
<i>B3gnt4</i>	similar to UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 4	0.3718		0.0051	0.3691	0.0012
<i>Loc679509</i>	similar to Protein C14orf115 isoform 1	0.3718		0.0077	0.4431	0.0087
<i>Cd79b</i>	CD79B antigen	0.3716		0.0137	0.4313	0.0181

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Htr3b</i>	5-hydroxytryptamine (serotonin) receptor 3b	0.3715		0.0071	0.4448	0.0081
<i>Loc689983</i>	hypothetical protein	0.3712		0.0428	0.5522	0.0363
<i>Bglap</i>	osteocalcin	0.3712		0.0033	0.5108	0.0202
<i>Astl</i>	similar to Astacin-like metalloendopeptidase precursor (Oocyte astacin) (Ovastacin)	0.3709		0.0117	0.4408	0.0067
<i>Rasl10b</i>	similar to RAS-like, family 10, member B	0.3708		0.0114	0.3489	0.0068
<i>Loc363320</i>	hypothetical protein	0.3701		0.0262	0.4393	0.0288
<i>Loc679719</i>	hypothetical protein	0.3697		0.0212	0.4255	0.0230
<i>Pitx2</i>	paired-like homeodomain transcription factor 2 isoform 1	0.3697		0.0015	0.5718	0.0224
<i>Bhlha15</i>	muscle, intestine and stomach expression 1	0.3696		0.0082	0.4667	0.0110
<i>Loc689503</i>	hypothetical protein	0.3696		0.0069	0.4044	0.0141
<i>Tlr12</i>	similar to toll-like receptor 12	0.3695		0.0030	0.4760	0.0110
<i>Agmat</i>	agmatine ureohydrolase (agmatinase)	0.3695		0.0202	0.3803	0.0109
<i>Loc680189</i>	similar to prothymosin, alpha (gene sequence 28)	0.3692		0.0197	0.4090	0.0153
<i>Loc363894</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.3692		0.0409	0.3594	0.0495
<i>Krt85</i>	similar to keratin complex 2, basic, gene 25 isoform 2	0.3691		0.0133	0.4907	0.0466
<i>Klk1</i>	glandular kallikrein 12, submandibular/renal	0.3690		0.0314	0.3556	0.0462
<i>Rgd1308541</i>	similar to RIKEN cDNA 5730590G19-like	0.3689		0.0301	0.4728	0.0335
<i>Fbxo39</i>	F-box protein 39	0.3688		0.0079	0.4756	0.0133
<i>Inhbe</i>	inhibin beta E	0.3685		0.0062	0.5875	0.0200

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Steap1</i>	similar to Six transmembrane epithelial antigen of prostate 1	0.3685		0.0141	0.5117	0.0285
<i>Loc688327</i>	similar to Cell surface A33 antigen precursor (Glycoprotein A33) (mA33)	0.3684		0.0041	0.4856	0.0084
<i>Cd22</i>	similar to B-cell receptor CD22 precursor (Leu-14) (B-lymphocyte cell adhesion molecule) (BL-CAM) (Siglec-2)	0.3680		0.0010	0.4779	0.0049
<i>Tcf21</i>	transcription factor 21	0.3678		0.0108	0.4899	0.0172
<i>Lce1d</i>	hypothetical protein	0.3677		0.0423	0.3574	0.0224
<i>Mucdhl</i>	mucin and cadherin like	0.3676		0.0094	0.4294	0.0098
<i>Tlr5</i>	similar to Toll-like receptor 5 precursor	0.3674		0.0349	0.2818	0.0099
<i>Cdh1</i>	cadherin 1	0.3674		0.0005	0.3249	0.0021
<i>Col16a1</i>	similar to procollagen, type XVI, alpha 1 isoform 1	0.3673		0.0403	0.5490	0.0291
<i>Klk1c10</i>	similar to Glandular kallikrein-10 precursor (Tissue kallikrein) (T-kininogenase) (K10) (Proteinase B) (Endopeptidase K)	0.3672		0.0216	0.3419	0.0158
<i>Loc500598</i>	similar to tumor necrosis factor receptor superfamily, member 18	0.3670		0.0270	0.3932	0.0175
<i>Nanos3</i>	similar to nanos homolog 3	0.3670		0.0021	0.4710	0.0027
<i>Ffar3</i>	similar to Free fatty acid receptor 3 (G-protein coupled receptor 41)	0.3665		0.0044	0.4826	0.0088
<i>Pla2g2d</i>	phospholipase A2, group IID	0.3663		0.0043	0.4868	0.0399
<i>Rgd1564927</i>	similar to TGFB-induced factor 2	0.3663		0.0039	0.4931	0.0091
<i>Cd300lg</i>	similar to CMRF-35-like molecule-9 isoform 1	0.3663		0.0166	0.4847	0.0295
<i>Zdhhc19</i>	zinc finger, DHHC domain containing 19	0.3661		0.0141	0.4039	0.0162

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Lct</i>	similar to Lactase-phlorizin hydrolase precursor (Lactase-glycosylceramidase) isoform 1	0.3660	0.0043	0.4818	0.0205
<i>Odf3</i>	similar to shippo 1	0.3660	0.0122	0.4085	0.0234
<i>Mmp25</i>	similar to matrix metalloproteinase 25	0.3659	0.0039	0.4710	0.0044
<i>Chst4</i>	similar to carbohydrate (chondroitin 6/keratan) sulfotransferase 4	0.3658	0.0086	0.4314	0.0108
<i>Loc691615</i>	hypothetical protein	0.3658	0.0156	0.4653	0.0289
<i>Loc298820</i>	hypothetical protein	0.3656	0.0371	0.3917	0.0281
<i>Loc684392</i>	hypothetical protein	0.3655	0.0448	0.3791	0.0264
<i>Prokr1</i>	G protein-coupled receptor 73	0.3650	0.0110	0.3134	0.0023
<i>Loc291543</i>	similar to glyceraldehyde-3-phosphate dehydrogenase	0.3650	0.0090	0.4574	0.0181
<i>Obox6</i>	similar to oocyte specific homeobox 6	0.3647	0.0185	0.4621	0.0315
<i>Prss32</i>	similar to trypsin 5	0.3644	0.0092	0.5231	0.0079
<i>Loc364707</i>	similar to forkhead box F2	0.3636	0.0244	0.3236	0.0177
<i>Rgd1560742</i>	hypothetical protein	0.3635	0.0110	0.5464	0.0499
<i>Pdcd1</i>	similar to Programmed cell death protein 1 precursor (Protein PD-1) (mPD-1)	0.3635	0.0295	0.3041	0.0156
<i>Rgd1559592</i>	hypothetical protein	0.3634	0.0208	0.5205	0.0289
<i>Rgd1565487</i>	similar to paired box gene 7	0.3632	0.0321	0.4123	0.0443
<i>Fam46b</i>	similar to CG30497-PA, isoform A	0.3630	0.0040	0.4854	0.0072
<i>Loc678883</i>	similar to Tumor necrosis factor receptor superfamily member EDAR precursor (Anhidrotic ectodysplasin receptor 1) (Ectodysplasin-A receptor) (Ectodermal dysplasia receptor) (Downless)	0.3630	0.0066	0.3523	0.0008

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Wfdc8</i>	similar to WAP four-disulfide core domain protein 8 precursor (Putative protease inhibitor WAP8)	0.3628		0.0120	0.3551	0.0040
<i>Vill</i>	similar to Villin-like protein (EF-6)	0.3627		0.0179	0.5135	0.0179
<i>Plek2</i>	similar to Pleckstrin-2	0.3626		0.0279	0.4510	0.0341
<i>Dsg2</i>	similar to desmoglein 2	0.3625		0.0042	0.4678	0.0183
<i>Loc688599</i>	similar to hemicentin 1	0.3625		0.0089	0.5060	0.0188
<i>Agxt</i>	alanine-glyoxylate aminotransferase	0.3623		0.0165	0.5026	0.0350
<i>Loc684616</i>	similar to Serine/threonine-protein kinase WNK3 (Protein kinase with no lysine 3) (Protein kinase, lysine-deficient 3)	0.3616		0.0475	0.4804	0.0439
<i>Ptgdr</i>	similar to prostaglandin D receptor	0.3615		0.0048	0.4195	0.0245
<i>Loc682784</i>	similar to tyrosine kinase, non-receptor, 2	0.3614		0.0182	0.5359	0.0239
<i>Pla2g12b</i>	similar to phospholipase A2, group XIIB	0.3613		0.0069	0.4531	0.0231
<i>Gpx2</i>	glutathione peroxidase 2	0.3612		0.0303	0.3538	0.0099
<i>Loc680588</i>	similar to CXXC finger 6	0.3612		0.0058	0.4724	0.0185
<i>Ccdc154</i>	similar to Golgi autoantigen, golgin subfamily a, 3	0.3612		0.0270	0.3852	0.0189
<i>Dnmt3b</i>	DNA methyltransferase 3B	0.3609		0.0235	0.3730	0.0157
<i>Rgd1562492</i>	similar to Orphan sodium- and chloride-dependent neurotransmitter transporter NTT5 (Solute carrier family 6 member 16)	0.3607		0.0125	0.4048	0.0248
<i>Fam159b</i>	hypothetical protein	0.3605		0.0164	0.4391	0.0218
<i>Tm4sf5</i>	similar to transmembrane 4 superfamily member 5	0.3604		0.0172	0.4818	0.0194
<i>Wfdc5</i>	similar to WAP four-disulfide core domain 5	0.3598		0.0007	0.4198	0.0015

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Gja10</i>	similar to Gap junction alpha-10 protein (Connexin-57) (Cx57)	0.3597		0.0239	0.3605	0.0230
<i>Bsdc1</i>	similar to BSD domain containing 1 isoform 2	0.3596		0.0253	0.3900	0.0185
<i>Rax</i>	retina and anterior neural fold homeobox	0.3596		0.0165	0.4765	0.0196
<i>Wdr51a</i>	similar to WD repeat domain 51A	0.3593		0.0085	0.3755	0.0040
<i>Loc690341</i>	similar to Y59A8B.19	0.3592		0.0406	0.4022	0.0347
<i>Foxa1</i>	forkhead box A1	0.3591		0.0011	0.6042	0.0106
<i>Rnase111</i>	pancreatic ribonuclease delta	0.3590		0.0474	0.2833	0.0192
<i>Pld6</i>	similar to CG12314-PA	0.3588		0.0087	0.4843	0.0176
<i>Rgd1559982</i>	similar to paraneoplastic antigen MA3	0.3586		0.0092	0.4551	0.0199
<i>Loc689983</i>	hypothetical protein	0.3581		0.0419	0.5248	0.0476
<i>Loc690039</i>	hypothetical protein	0.3579		0.0496	0.4358	0.0369
<i>Smcp</i>	sperm mitochondria-associated cysteine-rich protein	0.3579		0.0316	0.3101	0.0238
<i>Slc16a5</i>	similar to solute carrier family 16, member 5	0.3578		0.0265	0.4102	0.0474
<i>Loc690114</i>	hypothetical protein	0.3577		0.0435	0.3574	0.0247
<i>Loc688274</i>	hypothetical protein	0.3577		0.0209	0.4464	0.0175
<i>Mbl1</i>	mannose binding lectin 1, protein A	0.3575		0.0087	0.4215	0.0079
<i>Loc688369</i>	similar to CG2453-PA	0.3573		0.0467	0.3629	0.0379
<i>Loc683522</i>	similar to Transcriptional enhancer factor TEF-3 (TEA domain family member 4) (TEAD-4) (ETF-related factor 2) (ETFR-2) (TEF-1-related factor 1) (TEF-1-related factor FR-19) (RTEF-1)	0.3573		0.0330	0.4113	0.0375
<i>Gprin2</i>	hypothetical protein	0.3572		0.0038	0.3599	0.0073
<i>Loc692007</i>	hypothetical protein	0.3570		0.0118	0.4299	0.0090

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc683498</i>	similar to Actin, aortic smooth muscle (Alpha-actin-2)	0.3569		0.0375	0.3169	0.0129
<i>Loc294446</i>	similar to Myristoylated alanine-rich C-kinase substrate (MARCKS) (Protein kinase C substrate 80 kDa protein) isoform 2	0.3567		0.0333	0.4389	0.0333
<i>Hmgb4</i>	similar to RIKEN cDNA 1700001F22	0.3565		0.0021	0.4056	0.0046
<i>Hspb9</i>	similar to Heat-shock protein beta-9 (HspB9)	0.3565		0.0394	0.3883	0.0279
<i>Kb15</i>	type II keratin Kb15	0.3565		0.0292	0.4545	0.0398
<i>Rgd1311317</i>	hypothetical protein	0.3562		0.0034	0.4611	0.0176
<i>S100z</i>	similar to S100 calcium binding protein, zeta	0.3560		0.0209	0.4461	0.0474
<i>Car13-Ps1</i>	similar to carbonic anhydrase 13	0.3560		0.0489	0.3843	0.0313
<i>Loc685669</i>	hypothetical protein	0.3559		0.0131	0.4457	0.0098
<i>Ankrd60</i>	similar to chromosome 20 open reading frame 86	0.3559		0.0140	0.4267	0.0330
<i>Csrp3</i>	cysteine-rich protein 3	0.3558		0.0284	0.3442	0.0143
<i>Saa4</i>	serum amyloid A 4	0.3556		0.0108	0.3496	0.0042
<i>Calca</i>	calcitonin isoform Calca preproprotein	0.3553		0.0204	0.3392	0.0080
<i>Fgfr2</i>	similar to Fibroblast growth factor receptor 2 precursor (FGFR-2) (Keratinocyte growth factor receptor) isoform 7	0.3546		0.0106	0.3765	0.0078
<i>Loc688653</i>	hypothetical protein	0.3545		0.0149	0.4325	0.0067
<i>Loc501274</i>	hypothetical protein isoform 2	0.3539		0.0462	0.4138	0.0333
<i>Loc681116</i>	hypothetical protein	0.3538		0.0164	0.4043	0.0215
<i>Loc685340</i>	hypothetical protein	0.3538		0.0463	0.3785	0.0382
<i>Loc686135</i>	hypothetical protein	0.3533		0.0172	0.3690	0.0164
<i>Loc683033</i>	hypothetical protein	0.3533		0.0222	0.4225	0.0270

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc685840</i>	similar to interferon-lambda2	0.3532		0.0098	0.4697	0.0191
<i>Ly6g5c</i>	lymphocyte antigen 6 complex G5C	0.3532		0.0113	0.3266	0.0039
<i>Sp7</i>	Sp7 transcription factor isoform 2	0.3532		0.0085	0.4022	0.0178
<i>Trim72</i>	hypothetical protein LOC365377	0.3527		0.0101	0.4844	0.0469
<i>Npsr1</i>	similar to Neuropeptide S receptor (G-protein coupled receptor 154)	0.3521		0.0055	0.4931	0.0055
<i>Loc680242</i>	hypothetical protein	0.3520		0.0132	0.5462	0.0226
<i>Hoxa10</i>	similar to Homeobox protein Hox-A11 (Hox-1.9)	0.3520		0.0201	0.4330	0.0172
<i>Loc689122</i>	hypothetical protein	0.3518		0.0158	0.3977	0.0183
<i>Svs4</i>	seminal vesicle protein 4	0.3518		0.0020	0.4793	0.0031
<i>Pck1</i>	phosphoenolpyruvate carboxykinase 1	0.3517		0.0136	0.3270	0.0119
<i>Rt1-T18</i>	histocompatibility 2, T region locus 18	0.3516		0.0230	0.3901	0.0381
<i>Rgd1561484</i>	similar to ribosomal protein S16	0.3516		0.0329	0.3778	0.0140
<i>Loc689983</i>	hypothetical protein	0.3513		0.0408	0.4741	0.0414
<i>Loc687983</i>	similar to Breakpoint cluster region protein	0.3511		0.0061	0.4236	0.0116
<i>Loc691870</i>	hypothetical protein	0.3511		0.0246	0.3815	0.0166
<i>Rgd1563108</i>	similar to chromosome 21 open reading frame 29	0.3509		0.0226	0.2546	0.0057
<i>Lce1f</i>	hypothetical protein	0.3507		0.0423	0.3507	0.0422
<i>Rgd1311993</i>	hypothetical protein	0.3507		0.0006	0.6392	0.0304
<i>Ptgd</i>	prostaglandin D receptor	0.3506		0.0095	0.3393	0.0255
<i>Loc683023</i>	similar to Dead end protein homolog 1 (RNA-binding motif, single-stranded interacting protein 4)	0.3504		0.0048	0.3650	0.0097
<i>Gpr50</i>	similar to G-protein-coupled receptor 50	0.3503		0.0377	0.3901	0.0266
<i>Catsper1</i>	similar to cation channel of sperm 1	0.3503		0.0091	0.4666	0.0191

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Chrna10</i>	cholinergic receptor, nicotinic, alpha polypeptide 10	0.3502		0.0294	0.3539	0.0274
<i>Rgd1561560</i>	similar to glycerol-3-phosphate dehydrogenase 1-like	0.3499		0.0355	0.3419	0.0156
<i>St6galnac1</i>	similar to Alpha-N-acetylgalactosaminide alpha-2,6-sialyltransferase 1 (GalNAc alpha-2,6-sialyltransferase I) (ST6GalNAc I) (Sialyltransferase 7A)	0.3497		0.0312	0.4019	0.0270
<i>Bpil3</i>	similar to Bactericidal/permeability-increasing protein-like 3 precursor	0.3494		0.0172	0.3930	0.0332
<i>Neurog3</i>	neurogenin 3	0.3493		0.0144	0.3539	0.0075
<i>Loc690715</i>	hypothetical protein	0.3491		0.0044	0.3825	0.0018
<i>Lpar5</i>	similar to Probable G-protein coupled receptor 92	0.3484		0.0115	0.5309	0.0108
<i>Bpi</i>	bactericidal/permeability-increasing protein	0.3482		0.0059	0.3811	0.0039
<i>Loc691030</i>	similar to RIKEN cDNA 1700001F22	0.3480		0.0499	0.3628	0.0150
<i>Loc685840</i>	similar to interferon-lambda2	0.3473		0.0135	0.3171	0.0111
<i>Rgd1564535</i>	similar to RiNg Finger protein family member (rnf-1)	0.3471		0.0030	0.3529	0.0038
<i>Amac1</i>	similar to acyl-malonyl condensing enzyme 1	0.3471		0.0252	0.4433	0.0417
<i>Gng4</i>	similar to Guanine nucleotide-binding protein G(I)/G(S)/G(O) gamma-4 subunit precursor	0.3469		0.0226	0.3906	0.0300
<i>Guca1a</i>	similar to guanylate cyclase activator 1a (retina)	0.3466		0.0104	0.3084	0.0180

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1565374</i>	similar to mast cell-expressed membrane protein 1	0.3465		0.0477	0.3451	0.0356
<i>Loc681652</i>	hypothetical protein	0.3464		0.0294	0.3853	0.0165
<i>Ccr4</i>	chemokine (C-C) receptor 4	0.3456		0.0016	0.2799	0.0011
<i>Defb12</i>	beta-defensin 12	0.3455		0.0169	0.4451	0.0080
<i>Pitx2</i>	paired-like homeodomain transcription factor 2 isoform 2	0.3453		0.0209	0.3577	0.0246
<i>Loc683389</i>	hypothetical protein	0.3445		0.0222	0.5102	0.0442
<i>Klk4</i>	kallikrein 4	0.3442		0.0004	0.5833	0.0093
<i>Clcnka</i>	chloride channel K1	0.3442		0.0111	0.3834	0.0082
<i>Ugt1a1</i>	UDP glycosyltransferase 1 family, polypeptide A1	0.3441		0.0452	0.4723	0.0376
<i>Loc680228</i>	hypothetical protein	0.3439		0.0177	0.3622	0.0070
<i>Pla2g2f</i>	similar to phospholipase A2, group IIF	0.3439		0.0260	0.3467	0.0198
<i>Loc684850</i>	hypothetical protein	0.3438		0.0171	0.4142	0.0123
<i>Kprp</i>	keratinocytes proline-rich protein	0.3438		0.0246	0.3679	0.0165
<i>Loc689367</i>	hypothetical protein	0.3437		0.0229	0.4000	0.0196
<i>Loc689768</i>	hypothetical protein	0.3437		0.0240	0.4308	0.0374
<i>Loc688267</i>	hypothetical protein	0.3437		0.0425	0.4396	0.0364
<i>Loc689927</i>	hypothetical protein isoform 2	0.3434		0.0322	0.3766	0.0308
<i>Loc685166</i>	hypothetical protein	0.3432		0.0180	0.4561	0.0348
<i>Tdrd6</i>	similar to tudor repeat 2	0.3432		0.0136	0.3953	0.0144
<i>Loc690137</i>	similar to transmembrane protein induced by tumor necrosis factor alpha	0.3432		0.0033	0.5394	0.0188
<i>Adck4</i>	similar to aarF domain containing kinase 4 (predicted)	0.3429		0.0045	0.4994	0.0151

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Itih1</i>	similar to Inter-alpha-trypsin inhibitor heavy chain H1 precursor (ITI heavy chain H1) (Inter-alpha-inhibitor heavy chain 1)	0.3428		0.0126	0.3550	0.0063
<i>Rt1-Da</i>	RT1 class II, locus Da	0.3427		0.0046	0.5072	0.0071
<i>Loc689024</i>	hypothetical protein	0.3420		0.0055	0.4331	0.0091
<i>Rgd1309759</i>	hypothetical protein	0.3410		0.0286	0.4085	0.0287
<i>Loc682757</i>	similar to proline-rich glycoprotein (sgp158)	0.3409		0.0332	0.3770	0.0372
<i>Aipl1</i>	aryl hydrocarbon receptor-interacting protein-like 1	0.3408		0.0032	0.4738	0.0093
<i>Loc690301</i>	hypothetical protein	0.3404		0.0236	0.3350	0.0185
<i>Loc682943</i>	hypothetical protein	0.3403		0.0097	0.4253	0.0148
<i>Loc682458</i>	hypothetical protein	0.3401		0.0205	0.3622	0.0099
<i>Loc690352</i>	hypothetical protein	0.3399		0.0229	0.3744	0.0078
<i>Treh</i>	similar to trehalase (brush-border membrane glycoprotein)	0.3399		0.0024	0.4300	0.0112
<i>Plac9</i>	similar to placenta specific 9	0.3398		0.0069	0.4345	0.0117
<i>Loc690950</i>	hypothetical protein	0.3397		0.0388	0.3690	0.0348
<i>Hoxc10</i>	similar to Homeobox protein Hox-C10 (Hox-3.6)	0.3389		0.0132	0.4387	0.0209
<i>Kb23</i>	type II keratin Kb23	0.3383		0.0092	0.3829	0.0111
<i>Loc689270</i>	similar to Serine/threonine-protein kinase MARK2 (MAP/microtubule affinity-regulating kinase 2) (ELKL motif kinase) (EMK1) (PAR1 homolog)	0.3382		0.0231	0.4813	0.0426
<i>Loc685604</i>	hypothetical protein	0.3381		0.0341	0.3957	0.0238
<i>Sfrp5</i>	similar to secreted frizzled-related sequence protein 5	0.3377		0.0007	0.4693	0.0454

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Umodl1</i>	similar to uromodulin-like 1 isoform 1	0.3375		0.0178	0.4751	0.0241
<i>Loc681228</i>	similar to eukaryotic translation elongation factor 1 delta	0.3375		0.0103	0.2945	0.0095
<i>Loc680154</i>	similar to RIKEN cDNA 5031410I06	0.3373		0.0418	0.3931	0.0332
<i>Nr5a1</i>	similar to Steroidogenic factor 1 (STF-1) (SF-1) (Adrenal 4-binding protein) (Steroid hormone receptor Ad4BP) (Fushi tarazu factor homolog 1) isoform 1	0.3359		0.0191	0.3787	0.0151
<i>Tpcr12</i>	similar to olfactory receptor 1395	0.3358		0.0344	0.3567	0.0173
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3356		0.0449	0.4014	0.0413
<i>Rgd1562848</i>	hypothetical protein	0.3355		0.0065	0.3990	0.0390
<i>Loc688989</i>	similar to SH3 domain binding protein CR16	0.3341		0.0370	0.3060	0.0180
<i>Slc22a20</i>	similar to solute carrier family 22 (organic anion transporter), member 20	0.3337		0.0306	0.4076	0.0216
<i>Cyp11a1</i>	cytochrome P450, family 11, subfamily a, polypeptide 1	0.3335		0.0303	0.4433	0.0426
<i>Rgd1564563</i>	similar to Cd209e antigen	0.3335		0.0249	0.3443	0.0222
<i>Lyg2</i>	similar to lysozyme-like	0.3335		0.0024	0.3959	0.0085
<i>Ecop</i>	similar to EGFR-coamplified and overexpressed protein	0.3333		0.0341	0.3706	0.0243
<i>Dspp</i>	dentin sialophosphoprotein	0.3329		0.0470	0.3152	0.0368
<i>Il13</i>	interleukin 13	0.3327		0.0084	0.4817	0.0279
<i>Kbtbd7</i>	kelch repeat and BTB (POZ) domain containing 7	0.3327		0.0370	0.3702	0.0349
<i>Loc690731</i>	hypothetical protein	0.3323		0.0174	0.3512	0.0188
<i>Rgd1561563</i>	similar to vitamin A-deficient testicular protein 11-like	0.3320		0.0072	0.3810	0.0094

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Ctsw</i>	cathepsin W	0.3314		0.0244	0.3621	0.0139
<i>Dnmt3l</i>	DNA (cytosine-5-)-methyltransferase 3-like	0.3312		0.0283	0.3563	0.0276
<i>Abpa</i>	similar to androgen-binding protein eta	0.3307		0.0108	0.3930	0.0207
<i>Loc685521</i>	hypothetical protein	0.3306		0.0148	0.3369	0.0079
<i>Loc683506</i>	hypothetical protein	0.3306		0.0092	0.3404	0.0122
<i>Loc501312</i>	hypothetical protein	0.3298		0.0460	0.3983	0.0272
<i>Hoxd10</i>	similar to homeo box D10	0.3298		0.0256	0.3711	0.0399
<i>Tssk6</i>	similar to testis-specific serine kinase 6	0.3294		0.0032	0.4883	0.0097
<i>Pax8</i>	paired box gene 8	0.3294		0.0126	0.3578	0.0074
<i>Mcpt2</i>	mast cell peptidase 2	0.3293		0.0252	0.2488	0.0164
<i>Rgd1565310</i>	similar to RIKEN cDNA 1110018J12	0.3292		0.0151	0.3562	0.0289
<i>Il11</i>	interleukin 11	0.3290		0.0032	0.4114	0.0286
<i>Loc688351</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3288		0.0211	0.4790	0.0407
<i>Pcsk5</i>	similar to Proprotein convertase subtilisin/kexin type 5 precursor (Proprotein convertase PC5) (Subtilisin/kexin-like protease PC5) (PC6) (Subtilisin-like proprotein convertase 6) (SPC6)	0.3287		0.0025	0.4372	0.0162
<i>Sct</i>	secretin	0.3287		0.0275	0.3415	0.0300
<i>Loc503393</i>	hypothetical protein	0.3280		0.0182	0.3595	0.0048
<i>Dpep3</i>	dipeptidase 3	0.3278		0.0007	0.3841	0.0051
<i>Cacng1</i>	voltage-dependent calcium channel gamma-1 subunit	0.3276		0.0033	0.4365	0.0081
<i>Trem11</i>	similar to triggering receptor expressed on myeloid cells-like 1	0.3276		0.0114	0.3653	0.0063
<i>Taar3</i>	trace amine associated receptor 3	0.3272		0.0350	0.3151	0.0135

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Slc26a9</i>	similar to solute carrier family 26, member 9	0.3272		0.0256	0.2794	0.0264
<i>Loc689914</i>	similar to C05G5.5	0.3269		0.0081	0.4268	0.0127
<i>Mylc2pl</i>	similar to myosin light chain 2, precursor lymphocyte-specific	0.3268		0.0031	0.5325	0.0128
<i>Pdcd1lg2</i>	similar to programmed cell death 1 ligand 2	0.3268		0.0026	0.3856	0.0093
<i>Etv2</i>	similar to ets related protein 71	0.3267		0.0208	0.3569	0.0291
<i>Loc690280</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.3265		0.0405	0.3840	0.0394
<i>Rgd1564086</i>	hypothetical protein	0.3262		0.0483	0.3313	0.0444
<i>Padi1</i>	peptidyl arginine deiminase, type I	0.3262		0.0084	0.3738	0.0098
<i>Dmrtb1</i>	similar to DMRT-like family B with proline-rich C-terminal, 1	0.3262		0.0058	0.4267	0.0084
<i>Rgd1565404</i>	hypothetical protein	0.3258		0.0284	0.4175	0.0271
<i>Hoxc10</i>	similar to Homeobox protein Hox-C10 (Hox-3.6)	0.3253		0.0125	0.4890	0.0146
<i>Loc689458</i>	similar to vitamin A-deficient testicular protein 11-like	0.3249		0.0306	0.4151	0.0234
<i>Tlr11</i>	similar to toll-like receptor 11	0.3248		0.0299	0.3897	0.0291
<i>Rtp3</i>	similar to Receptor-transporting protein 3 (Transmembrane protein 7)	0.3246		0.0060	0.4313	0.0115
<i>Kcna10</i>	similar to potassium voltage-gated channel, shaker-related subfamily, member 10	0.3246		0.0175	0.3783	0.0189
<i>Loc678701</i>	hypothetical protein	0.3244		0.0388	0.2867	0.0159
<i>Rgd1566370</i>	hypothetical protein	0.3240		0.0297	0.4995	0.0400

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1563108</i>	similar to chromosome 21 open reading frame 29	0.3239		0.0245	0.3246	0.0473
<i>Rgd1559902</i>	similar to Thioredoxin (ATL-derived factor) (ADF) (Surface associated sulphhydryl protein) (SASP)	0.3237		0.0064	0.4623	0.0212
<i>Rgd1561563</i>	similar to vitamin A-deficient testicular protein 11-like	0.3235		0.0093	0.4920	0.0354
<i>Habp2</i>	hyaluronan-binding protein	0.3233		0.0259	0.3158	0.0100
<i>Il12rb1</i>	similar to Interleukin-12 receptor beta-1 chain precursor (IL-12R-beta1) (Interleukin-12 receptor beta) (IL-12 receptor beta component) (CD212 antigen)	0.3232		0.0046	0.2763	0.0019
<i>Loc689714</i>	similar to Transcription factor SOX-2	0.3228		0.0324	0.4435	0.0250
<i>Loc680949</i>	similar to ribosomal protein S15a	0.3228		0.0335	0.4291	0.0316
<i>Loc686724</i>	similar to Robo-1	0.3227		0.0295	0.3377	0.0220
<i>Eppk1</i>	similar to Epiplakin	0.3221		0.0092	0.3037	0.0151
<i>Loc689048</i>	hypothetical protein	0.3217		0.0267	0.3979	0.0447
<i>Sohlh1</i>	similar to spermatogenesis and oogenesis specific basic helix-loop-helix 1	0.3216		0.0060	0.4108	0.0170
<i>Loc686126</i>	hypothetical protein	0.3211		0.0133	0.3689	0.0297
<i>Senp17</i>	Sumo1/sentrin/Smt3 specific protease 17	0.3206		0.0446	0.3051	0.0177
<i>Nkx6-3</i>	similar to NK6 transcription factor related, locus 2	0.3205		0.0167	0.3096	0.0077
<i>Krt5</i>	keratin 5 (epidermolysis bullosa simplex, Dowling-Meara/Kobner/Weber-Cockayne types)	0.3204		0.0067	0.4038	0.0196
<i>Tas2r126</i>	taste receptor, type 2, member 41	0.3204		0.0500	0.3260	0.0090
<i>Cd2</i>	CD2 antigen	0.3200		0.0283	0.3566	0.0289

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1564031</i>	similar to transcription elongation factor B (SIII), polypeptide 2	0.3198		0.0440	0.3600	0.0291
<i>Loc681047</i>	hypothetical protein	0.3197		0.0400	0.4323	0.0406
#N/A	cadmium-inducible gene 1L	0.3196		0.0169	0.4177	0.0227
<i>Rgd1565743</i>	similar to Voltage-dependent L-type calcium channel alpha-1S subunit (Voltage-gated calcium channel alpha subunit Cav1.1) (Calcium channel, L type, alpha-1 polypeptide, isoform 3, skeletal muscle)	0.3193		0.0078	0.3781	0.0060
<i>Tessp2</i>	similar to testis serine protease 2	0.3191		0.0114	0.3884	0.0115
<i>Slc5a10</i>	similar to solute carrier family 5 (sodium/glucose cotransporter), member 10	0.3189		0.0115	0.3124	0.0091
<i>Tnni2</i>	troponin 1, type 2	0.3184		0.0183	0.3729	0.0342
<i>Loc685377</i>	hypothetical protein	0.3183		0.0197	0.3696	0.0209
<i>Loc691982</i>	hypothetical protein	0.3181		0.0050	0.3626	0.0053
<i>Esr2</i>	estrogen receptor beta	0.3181		0.0012	0.3653	0.0009
<i>Loc686034</i>	similar to chromobox homolog 3	0.3179		0.0342	0.3696	0.0342
<i>Glp1r</i>	similar to Glucagon-like peptide 1 receptor precursor (GLP-1 receptor) (GLP-1-R) (GLP-1R)	0.3176		0.0020	0.3448	0.0025
#N/A	similar to Immunoglobulin omega chain precursor (VpreB2 protein)	0.3173		0.0234	0.2706	0.0124
<i>Loc681121</i>	hypothetical protein	0.3171		0.0169	0.3088	0.0128
<i>Loc690206</i>	hypothetical protein	0.3171		0.0104	0.4314	0.0199
<i>Rgd1561149</i>	hypothetical protein	0.3169		0.0105	0.4300	0.0401
<i>Pramef12</i>	similar to PRAME family member DJ1198H6.2	0.3168		0.0101	0.3819	0.0424

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Duoxa2</i>	similar to Numb-interacting protein 2	0.3167		0.0007	0.3307	0.0078
<i>Ccl26</i>	similar to eotaxin 3-like	0.3165		0.0352	0.2813	0.0155
<i>Rgd1562546</i>	similar to trophinin isoform 1	0.3164		0.0222	0.3665	0.0224
<i>Ccr6</i>	chemokine (C-C motif) receptor 6	0.3163		0.0159	0.4715	0.0365
<i>Loc686138</i>	hypothetical protein	0.3163		0.0267	0.3297	0.0355
<i>Il24</i>	interleukin 24	0.3157		0.0250	0.3444	0.0173
<i>Loc306365</i>	similar to ankyrin repeat domain 26	0.3150		0.0169	0.4019	0.0310
<i>Trpc2</i>	transient receptor potential cation channel, subfamily C, member 2	0.3145		0.0013	0.4815	0.0038
<i>Loc687853</i>	hypothetical protein	0.3144		0.0007	0.4535	0.0074
<i>Padi6</i>	similar to Protein-arginine deiminase type-6 (Protein-arginine deiminase type VI) (Peptidylarginine deiminase VI) (Arginine deiminase-like protein) (Egg and embryo abundant PAD) (ePAD)	0.3144		0.0292	0.3416	0.0265
<i>Loc679635</i>	similar to olfactory receptor Olr1680	0.3143		0.0274	0.4292	0.0351
<i>Loc685397</i>	similar to CG17097-PB, isoform B	0.3143		0.0248	0.3450	0.0117
<i>Nppb</i>	natriuretic peptide precursor type B	0.3142		0.0032	0.4692	0.0186
<i>Rgd1565363</i>	similar to BoIA-2 protein	0.3139		0.0247	0.3992	0.0435
<i>Loc680347</i>	hypothetical protein	0.3137		0.0012	0.3764	0.0066
<i>Ptgir</i>	prostaglandin I receptor (IP)	0.3137		0.0021	0.4013	0.0189
<i>Rgd1561975</i>	similar to TGFB-induced factor 2	0.3135		0.0051	0.4063	0.0087
<i>Loc682754</i>	hypothetical protein	0.3132		0.0315	0.3305	0.0425
<i>Loc689999</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3132		0.0408	0.3715	0.0438
<i>Loc680563</i>	hypothetical protein	0.3132		0.0159	0.4233	0.0319
<i>Loc680730</i>	hypothetical protein	0.3130		0.0099	0.4087	0.0084
<i>Rgd1559999</i>	similar to PRAME family member 5	0.3129		0.0316	0.3396	0.0380

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687619</i>	hypothetical protein	0.3127		0.0410	0.3036	0.0391
<i>Pla2g2e</i>	similar to Group IIE secretory phospholipase A2 precursor (Phosphatidylcholine 2-acylhydrolase GIIE) (GIIE sPLA2) (sPLA(2)-IIE)	0.3119		0.0233	0.2512	0.0118
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3116		0.0235	0.4231	0.0318
<i>Loc680108</i>	hypothetical protein	0.3116		0.0184	0.3492	0.0081
<i>Rgd1559578</i>	hypothetical protein	0.3115		0.0183	0.3880	0.0356
<i>Tmem184a</i>	hypothetical protein LOC304325	0.3110		0.0047	0.3619	0.0062
<i>Klk1b3</i>	nerve growth factor, gamma	0.3110		0.0090	0.4274	0.0157
<i>Loc684947</i>	similar to glyceraldehyde-3-phosphate dehydrogenase	0.3110		0.0062	0.4038	0.0176
<i>Loc363397</i>	similar to RIKEN cDNA 5031410I06	0.3108		0.0376	0.3739	0.0275
<i>Loc685810</i>	hypothetical protein	0.3108		0.0091	0.3336	0.0071
<i>Retn</i>	resistin	0.3107		0.0002	0.4199	0.0020
<i>Loc691301</i>	hypothetical protein	0.3102		0.0119	0.3648	0.0183
<i>Rgd1310384</i>	hypothetical protein isoform 1	0.3101		0.0089	0.4649	0.0177
<i>Loc688112</i>	similar to paired-Ig-like receptor A11	0.3101		0.0015	0.2335	0.0044
<i>Loc688354</i>	similar to Vomeromodulin	0.3094		0.0201	0.3029	0.0067
<i>Rgd1560412</i>	similar to Leukosialin precursor (Leucocyte sialoglycoprotein) (Sialophorin) (CD43) (W3/13 antigen)	0.3093		0.0080	0.3380	0.0056
<i>Loc690458</i>	hypothetical protein	0.3093		0.0082	0.4248	0.0281
<i>Loc686168</i>	similar to ankyrin repeat domain 29	0.3093		0.0010	0.4517	0.0262
<i>Loc679254</i>	hypothetical protein	0.3087		0.0107	0.3290	0.0137
<i>Tessp5</i>	testis-specific serine protease-5	0.3087		0.0159	0.3696	0.0158
<i>Cbln3</i>	similar to Cerebellin-3 precursor	0.3087		0.0127	0.3873	0.0219
<i>Oxt</i>	oxytocin	0.3084		0.0061	0.4447	0.0079

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc363060</i>	hypothetical protein LOC363060	0.3076		0.0156	0.5453	0.0236
<i>Gjb5</i>	gap junction membrane channel protein beta 5	0.3076		0.0066	0.3494	0.0112
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.3074		0.0329	0.3777	0.0340
<i>Loc501842</i>	similar to F40G9.9	0.3069		0.0390	0.3515	0.0382
<i>Doxl1</i>	diamine oxidase-like protein 1	0.3069		0.0050	0.3770	0.0083
<i>Foxd4</i>	similar to Forkhead box protein D4 (Forkhead-related protein FKHL9) (Forkhead-related transcription factor 5) (FREAC-5) (Transcription factor FKH-2)	0.3068		0.0493	0.3965	0.0383
<i>Tmprss3</i>	similar to Transmembrane protease, serine 3	0.3067		0.0335	0.3294	0.0312
<i>Loc684685</i>	similar to regulator of G-protein signalling like 2	0.3066		0.0130	0.3966	0.0100
<i>Orm1</i>	orosomuroid 1	0.3065		0.0139	0.3473	0.0122
<i>Phldb3</i>	similar to pleckstrin homology-like domain, family B, member 3	0.3061		0.0016	0.3962	0.0025
<i>Tessp1</i>	similar to testis-specific serine protease 1	0.3058		0.0155	0.2910	0.0142
<i>Loc691025</i>	hypothetical protein	0.3054		0.0337	0.3326	0.0386
<i>Zfmx4</i>	similar to zinc finger homeodomain 4	0.3052		0.0454	0.3452	0.0498
<i>Slc34a2</i>	solute carrier family 34 (sodium phosphate), member 2	0.3050		0.0249	0.3071	0.0193
<i>Loc685685</i>	similar to S100 calcium-binding protein, ventral prostate	0.3048		0.0211	0.3339	0.0082
<i>Kcnj15</i>	potassium inwardly-rectifying channel J15	0.3045		0.0163	0.4905	0.0492
<i>Lgals4</i>	lectin, galactoside-binding, soluble, 4 (galectin 4)	0.3044		0.0028	0.4377	0.0021

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc690375</i>	hypothetical protein	0.3041		0.0308	0.3500	0.0379
<i>Cnga3</i>	cyclic nucleotide gated channel alpha 3	0.3040		0.0084	0.3154	0.0051
<i>Loc682829</i>	similar to benzodiazapine receptor, peripheral-like 1	0.3039		0.0137	0.3385	0.0028
<i>Fignl2</i>	similar to fidgetin-like 1	0.3033		0.0003	0.4440	0.0011
<i>Msgn1</i>	similar to mesogenin 1	0.3033		0.0142	0.2650	0.0071
<i>Gm52</i>	envelope glycoprotein syncytin-A	0.3033		0.0044	0.3037	0.0231
<i>Mrgprh</i>	MAS-related G-protein coupled receptor, member H	0.3031		0.0277	0.4277	0.0357
<i>Loc688460</i>	hypothetical protein	0.3031		0.0192	0.3468	0.0301
<i>Rgd1564676</i>	hypothetical protein	0.3031		0.0255	0.3144	0.0176
<i>Loc688320</i>	similar to Lung carbonyl reductase [NADPH] (NADPH-dependent carbonyl reductase) (LCR) (Adipocyte P27 protein) (AP27)	0.3024		0.0014	0.3554	0.0060
<i>Scn10a</i>	similar to Sodium channel protein type X alpha subunit (Voltage-gated sodium channel alpha subunit Nav1.8) (Peripheral nerve sodium channel 3) (Sensory neuron sodium channel)	0.3024		0.0291	0.3040	0.0248
<i>Hspb1</i>	heat shock 27kDa protein 1	0.3017		0.0006	0.5782	0.0043
<i>Loc685178</i>	hypothetical protein	0.3015		0.0129	0.4271	0.0373
<i>Loc689282</i>	hypothetical protein	0.3014		0.0013	0.4664	0.0078
<i>Cd5l</i>	CD5 antigen-like	0.3013		0.0161	0.3760	0.0072
<i>Loc683941</i>	similar to transmembrane protease, serine 4	0.3012		0.0142	0.3206	0.0065
<i>Fgf6</i>	fibroblast growth factor 6	0.3011		0.0146	0.3649	0.0134
<i>Loc689425</i>	hypothetical protein	0.3005		0.0164	0.3334	0.0179

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc679703</i>	similar to BCL6 co-repressor-like 1	0.3001		0.0168	0.3847	0.0198
<i>Gpha2</i>	glycoprotein hormone alpha 2	0.3001		0.0052	0.3481	0.0059
<i>Loc691728</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.3000		0.0345	0.4411	0.0318
<i>Umod</i>	uromodulin	0.2999		0.0033	0.2892	0.0017
<i>Ar113a</i>	similar to ADP-ribosylation factor-like 13	0.2998		0.0056	0.3965	0.0186
<i>Loc679149</i>	similar to carboxylesterase 2 (intestine, liver) isoform 1	0.2997		0.0043	0.6413	0.0210
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2996		0.0277	0.4386	0.0334
<i>Psg29</i>	hypothetical protein LOC292666	0.2991		0.0327	0.3393	0.0140
<i>Loc690744</i>	hypothetical protein	0.2990		0.0170	0.3258	0.0220
<i>Sox12</i>	similar to SRY-box containing gene 12	0.2990		0.0075	0.2996	0.0090
<i>Tmem92</i>	hypothetical protein	0.2989		0.0367	0.2394	0.0119
<i>AstI</i>	similar to Astacin-like metalloendopeptidase precursor (Oocyte astacin) (Ovastacin)	0.2987		0.0053	0.3698	0.0026
<i>Loc684787</i>	hypothetical protein	0.2979		0.0048	0.4108	0.0212
<i>Loc684479</i>	similar to CXYorf1-related protein	0.2977		0.0084	0.3431	0.0098
<i>Cabp2</i>	similar to Calcium-binding protein 2 (CaBP2)	0.2969		0.0060	0.3429	0.0039
<i>Loc680431</i>	hypothetical protein	0.2964		0.0099	0.3585	0.0256
<i>Rgd1564173</i>	similar to RIKEN cDNA 1700001F22	0.2964		0.0073	0.3484	0.0153
<i>Scn10a</i>	sodium channel, voltage-gated, type 10, alpha polypeptide	0.2960		0.0180	0.2971	0.0246
<i>Kb40</i>	similar to keratin Kb40	0.2960		0.0050	0.3804	0.0076
<i>Rgd1560115</i>	similar to TGFB-induced factor 2	0.2955		0.0210	0.3647	0.0200
<i>Rgd1561339</i>	hypothetical protein	0.2954		0.0287	0.3990	0.0321
<i>Es1</i>	esterase 2	0.2953		0.0292	0.3253	0.0242

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1310036</i>	hypothetical protein LOC316000	0.2950		0.0247	0.2967	0.0167
<i>Cib3</i>	similar to DNA-dependent protein kinase catalytic subunit-interacting protein 3	0.2945		0.0032	0.4350	0.0100
<i>Tbx1</i>	similar to T-box 1	0.2944		0.0022	0.4764	0.0199
<i>Loc685763</i>	hypothetical protein	0.2941		0.0152	0.4431	0.0215
<i>Zfp217</i>	similar to zinc finger protein 217	0.2938		0.0062	0.3363	0.0050
<i>Loc679606</i>	similar to R3H domain-containing protein 2	0.2935		0.0327	0.2575	0.0135
<i>Rgd1561542</i>	hypothetical protein	0.2933		0.0148	0.3823	0.0307
<i>Loc681237</i>	hypothetical protein	0.2932		0.0088	0.3464	0.0093
<i>Pdx1</i>	pancreatic and duodenal homeobox gene 1	0.2932		0.0092	0.3147	0.0040
<i>Loxhd1</i>	similar to lipoxygenase homology domains 1	0.2932		0.0017	0.3657	0.0013
<i>Rgd1566007</i>	similar to Serine/threonine-protein kinase MARK1 (MAP/microtubule affinity-regulating kinase 1)	0.2929		0.0253	0.3844	0.0181
<i>Rgd1562019</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2922		0.0361	0.3418	0.0334
<i>Mgc112692</i>	hypothetical protein LOC498157	0.2922		0.0327	0.2715	0.0215
<i>Pycr1</i>	similar to pyrroline-5-carboxylate reductase 1	0.2921		0.0074	0.3048	0.0040
<i>Il1rn</i>	interleukin 1 receptor antagonist	0.2916		0.0267	0.3449	0.0311
<i>Rgd1562431</i>	similar to Protein FAM113A	0.2915		0.0138	0.3545	0.0122
<i>Loc691553</i>	hypothetical protein	0.2912		0.0007	0.3697	0.0141

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689992</i>	similar to Keratin-associated protein 10-1 (Keratin-associated protein 10.1) (High sulfur keratin-associated protein 10.1) (Keratin-associated protein 18-1) (Keratin-associated protein 18.1) isoform 2	0.2910		0.0272	0.3365	0.0286
<i>Uts2</i>	urotensin 2	0.2910		0.0135	0.3466	0.0118
<i>Peli1</i>	hypothetical protein	0.2905		0.0205	0.3664	0.0142
<i>Loc690694</i>	hypothetical protein	0.2904		0.0338	0.4105	0.0487
<i>Clps</i>	colipase, pancreatic	0.2903		0.0267	0.2829	0.0171
<i>Lin28</i>	similar to lin-28 homolog	0.2903		0.0279	0.3438	0.0178
<i>Rgd1564515</i>	similar to alpha 1B-glycoprotein	0.2900		0.0437	0.3224	0.0439
<i>Loc502850</i>	similar to mannose-6-phosphate receptor binding protein 1	0.2898		0.0018	0.3330	0.0021
<i>Rgd1561281</i>	similar to keratin associated protein 2-4	0.2893		0.0270	0.3218	0.0131
<i>Loc678971</i>	hypothetical protein	0.2893		0.0228	0.3087	0.0182
<i>Loc689992</i>	similar to keratin associated protein 10- 10 isoform 1	0.2888		0.0468	0.3289	0.0472
<i>Tgm3</i>	similar to transglutaminase 3, E polypeptide	0.2886		0.0238	0.3286	0.0116
<i>Loc692042</i>	hypothetical protein	0.2883		0.0307	0.3416	0.0268
<i>Tktl2</i>	similar to transketolase-like 2	0.2883		0.0204	0.3390	0.0280
<i>Loc501368</i>	similar to RIKEN cDNA 5031410I06	0.2878		0.0326	0.4185	0.0344
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2876		0.0255	0.4024	0.0418
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2875		0.0367	0.4189	0.0407
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2869		0.0344	0.3770	0.0461
<i>Rgd1563217</i>	hypothetical protein	0.2868		0.0197	0.3277	0.0247
<i>Tff2</i>	trefoil factor 2	0.2865		0.0150	0.2793	0.0054

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Hoxb4</i>	similar to Homeobox protein Hox-B4 (Hox-2.6)	0.2859		0.0103	0.3160	0.0131
<i>Loc690669</i>	similar to spermiogenesis specific transcript on the Y 2	0.2849		0.0470	0.3557	0.0318
<i>Loc680431</i>	hypothetical protein	0.2848		0.0087	0.3644	0.0258
<i>Rgd1562885</i>	similar to Protein C6orf15 precursor (STG protein)	0.2847		0.0109	0.3368	0.0085
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2847		0.0371	0.3795	0.0387
<i>Rgd1564174</i>	similar to tensin-like SH2 domain containing 1	0.2845		0.0088	0.3066	0.0108
<i>Rgd1560580</i>	similar to Y-linked testis-specific protein	0.2844		0.0487	0.3344	0.0356
<i>Loc689983</i>	hypothetical protein	0.2841		0.0491	0.3089	0.0258
<i>Loc685291</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2839		0.0309	0.2672	0.0364
<i>Vdr</i>	vitamin D receptor	0.2829		0.0110	0.3892	0.0156
<i>Rgd1561106</i>	similar to Ferritin heavy chain (Ferritin H subunit) (Proliferation-inducing gene 15 protein)	0.2829		0.0220	0.3648	0.0250
<i>Prop1</i>	paired like homeodomain factor 1	0.2824		0.0091	0.2971	0.0046
<i>Actl7a</i>	actin-like 7a	0.2808		0.0161	0.3497	0.0271
<i>Loc691999</i>	hypothetical protein	0.2807		0.0023	0.3421	0.0043
<i>Opn1sw</i>	blue cone opsin-like pigment	0.2794		0.0144	0.2101	0.0030
<i>Loc690415</i>	hypothetical protein	0.2793		0.0243	0.3254	0.0255
<i>Rgd1563425</i>	hypothetical protein	0.2793		0.0130	0.2338	0.0104
<i>Gphb5</i>	glycoprotein hormone subunit beta 5	0.2791		0.0144	0.3297	0.0295
<i>Catsper1</i>	similar to cation channel of sperm 1	0.2785		0.0057	0.2802	0.0121
<i>Loc682039</i>	hypothetical protein	0.2780		0.0150	0.3228	0.0312

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rnase2</i>	pre-eosinophil-associated ribonuclease-2	0.2779		0.0195	0.3935	0.0249
<i>Ccdc109b</i>	similar to CG18769-PB, isoform B	0.2779		0.0430	0.3767	0.0327
<i>Zdhhc25</i>	membrane-associated DHHC26 zinc finger protein	0.2778		0.0158	0.3503	0.0406
<i>Rgd1560560</i>	similar to Olfactory receptor 10AD1	0.2770		0.0324	0.2999	0.0306
<i>Loc686222</i>	hypothetical protein	0.2769		0.0153	0.3112	0.0230
<i>Rgd1564236</i>	similar to oocyte specific homeobox 3	0.2766		0.0425	0.2247	0.0202
<i>Spil2</i>	antileukoproteinase-like 2	0.2758		0.0228	0.3059	0.0177
<i>Loc678714</i>	hypothetical protein	0.2757		0.0267	0.2879	0.0299
<i>Loc685711</i>	similar to RIKEN cDNA 5031410I06	0.2752		0.0482	0.4071	0.0420
<i>Kif2b</i>	similar to kinesin protein	0.2751		0.0050	0.3689	0.0084
<i>Loc680431</i>	similar to aristaless related homeobox gene	0.2748		0.0230	0.3402	0.0378
<i>Loc687109</i>	similar to CG13731-PA	0.2748		0.0349	0.3037	0.0421
<i>Fam71f2</i>	hypothetical protein LOC500060	0.2748		0.0180	0.3324	0.0160
<i>Loc689745</i>	hypothetical protein	0.2748		0.0111	0.3297	0.0082
<i>Loc690400</i>	hypothetical protein	0.2747		0.0186	0.2966	0.0209
<i>Loc690582</i>	hypothetical protein	0.2746		0.0243	0.3587	0.0438
<i>Loc690469</i>	similar to keratin associated protein 10-7	0.2746		0.0339	0.3000	0.0368
<i>Lcn13</i>	similar to lipocalin 13	0.2745		0.0138	0.3068	0.0107
<i>Loc681544</i>	similar to histidine-rich glycoprotein	0.2744		0.0353	0.3513	0.0322
#N/A	similar to aldehyde dehydrogenase 4 family, member A1	0.2744		0.0290	0.3238	0.0229
<i>Loc681164</i>	hypothetical protein	0.2734		0.0236	0.4733	0.0487
<i>Cyp2b31</i>	similar to Cytochrome P450 2B12 (CYPIIB12)	0.2730		0.0138	0.4822	0.0444
<i>Loc292543</i>	hypothetical protein LOC292543	0.2730		0.0341	0.3247	0.0146

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688816</i>	hypothetical protein	0.2729		0.0198	0.3477	0.0148
<i>Cd16311</i>	similar to scavenger receptor cysteine-rich type 1 protein M160 precursor	0.2729		0.0065	0.3084	0.0016
<i>Loc680431</i>	hypothetical protein	0.2727		0.0226	0.3552	0.0332
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2725		0.0413	0.3574	0.0386
<i>Loc682815</i>	hypothetical protein	0.2724		0.0099	0.3707	0.0144
<i>Cryge</i>	crystallin, gamma E	0.2721		0.0493	0.2225	0.0077
<i>Rgd1306556</i>	hypothetical protein	0.2720		0.0055	0.3905	0.0107
<i>Rgd1560737</i>	similar to DNA-directed RNA polymerase II largest subunit (RPB1)	0.2718		0.0436	0.2716	0.0470
<i>Rgd1564357</i>	hypothetical protein	0.2718		0.0059	0.3133	0.0079
<i>Loc685501</i>	hypothetical protein	0.2717		0.0048	0.3246	0.0040
<i>Hoxc4</i>	similar to homeobox C5	0.2713		0.0213	0.2455	0.0271
<i>Slamf8</i>	similar to B lymphocyte activator macrophage expressed	0.2712		0.0109	0.4122	0.0196
<i>Loc687332</i>	hypothetical protein	0.2712		0.0255	0.3026	0.0394
<i>Loc678714</i>	hypothetical protein	0.2707		0.0387	0.3079	0.0357
<i>Krt1</i>	type II keratin Kb1	0.2705		0.0145	0.3086	0.0203
<i>Kcne3</i>	potassium voltage-gated channel, Isk-related subfamily, member 3	0.2705		0.0155	0.5100	0.0171
<i>Oxgr1</i>	G protein-coupled receptor 80	0.2698		0.0392	0.2772	0.0326
<i>Zp1</i>	similar to Zona pellucida sperm-binding protein 1 precursor (Zona pellucida glycoprotein 1) (Zp-1)	0.2695		0.0032	0.4010	0.0206
<i>Fcer2</i>	Fc receptor, IgE, low affinity II, alpha polypeptide isoform a	0.2691		0.0147	0.3020	0.0118
<i>Impg1</i>	interphotoreceptor matrix proteoglycan 1	0.2690		0.0227	0.4324	0.0232

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Cphx</i>	similar to C.Elegans Homeobox family member (ceh-45)	0.2683		0.0186	0.3371	0.0110
<i>Loc680431</i>	hypothetical protein	0.2680		0.0072	0.3586	0.0237
<i>Loc686272</i>	hypothetical protein	0.2679		0.0128	0.4082	0.0252
<i>Rgd1559965</i>	similar to WW domain binding protein 11	0.2676		0.0099	0.3271	0.0189
<i>Loc689599</i>	hypothetical protein	0.2674		0.0445	0.2656	0.0304
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2671		0.0186	0.3875	0.0259
<i>Loc686143</i>	similar to keratinocytes proline-rich protein	0.2668		0.0023	0.3010	0.0013
<i>Psg19</i>	carcinoembryonic antigen gene family (CGM3)	0.2668		0.0084	0.3470	0.0148
<i>Oxct2a</i>	3-oxoacid CoA transferase 2A	0.2666		0.0082	0.2646	0.0087
<i>Loc690284</i>	similar to F49E2.5d	0.2664		0.0324	0.3036	0.0413
<i>Rgd1560663</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.2663		0.0361	0.3223	0.0277
<i>Loc685436</i>	hypothetical protein	0.2658		0.0186	0.3206	0.0401
<i>Rgd1561339</i>	similar to serine/threonine kinase	0.2655		0.0309	0.3953	0.0354
<i>Lcn6</i>	lipocalin 6	0.2648		0.0130	0.3744	0.0459
<i>Fam125b</i>	similar to C06A6.3	0.2644		0.0088	0.2993	0.0050
<i>Loc684208</i>	similar to olfactory receptor 557	0.2643		0.0259	0.3510	0.0212
<i>Loc691673</i>	hypothetical protein	0.2640		0.0327	0.2791	0.0253
<i>Dpcr1</i>	diffuse panbronchiolitis critical region gene 1	0.2636		0.0107	0.3617	0.0358
<i>Npc111</i>	NPC1-like 1	0.2634		0.0076	0.3104	0.0063
<i>Loc689599</i>	hypothetical protein	0.2633		0.0033	0.3477	0.0141
<i>Hoxd13</i>	similar to Homeobox protein Hox-D13 (Hox-4.8)	0.2630		0.0053	0.3986	0.0208
<i>Loc680431</i>	similar to double homeobox, 4	0.2626		0.0053	0.3264	0.0129

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Cnfn</i>	similar to cornifelin	0.2626		0.0323	0.3494	0.0381
<i>Mcpt9</i>	mast cell protease 9	0.2615		0.0253	0.2920	0.0192
<i>Loc317085</i>	hypothetical protein	0.2613		0.0313	0.3279	0.0369
<i>Loc681187</i>	similar to M199.5	0.2613		0.0271	0.3324	0.0338
<i>Rgd1564843</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2610		0.0481	0.2635	0.0133
<i>Rgd1565970</i>	similar to mast cell protease 8	0.2609		0.0277	0.2441	0.0292
<i>Hist1h2ba</i>	testis-specific histone 2b	0.2604		0.0168	0.3012	0.0196
<i>Fitm1</i>	similar to Cg10671 like	0.2598		0.0058	0.4539	0.0205
<i>Loc689927</i>	hypothetical protein isoform 3	0.2597		0.0254	0.3482	0.0433
<i>Rgd1563818</i>	similar to secretory leukocyte peptidase inhibitor	0.2596		0.0235	0.3246	0.0116
<i>Trim42</i>	similar to tripartite motif-containing 42	0.2591		0.0092	0.3880	0.0209
<i>Gnat1</i>	similar to Guanine nucleotide-binding protein G(t), alpha-1 subunit (Transducin alpha-1 chain)	0.2590		0.0015	0.3220	0.0021
<i>Loc690460</i>	similar to keratin associated protein 10-7	0.2590		0.0072	0.3015	0.0103
<i>Trim50</i>	tripartite motif protein 50	0.2588		0.0135	0.2381	0.0087
<i>H1fnt</i>	hypothetical protein LOC500928	0.2587		0.0286	0.2908	0.0452
<i>Pkd211</i>	similar to polycystic kidney disease 2-like 1	0.2584		0.0162	0.1781	0.0044
<i>Rgd1562019</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2583		0.0499	0.3035	0.0445
<i>Gpr31</i>	similar to G protein-coupled receptor 31, D17Leh66c region	0.2581		0.0013	0.3263	0.0015
<i>Il9r</i>	interleukin 9 receptor	0.2573		0.0086	0.3343	0.0151
<i>Loc679546</i>	hypothetical protein	0.2571		0.0324	0.2139	0.0078
<i>Cgm4</i>	carcinoembryonic antigen gene family 4	0.2570		0.0018	0.2905	0.0030

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Aqp7</i>	aquaporin 7	0.2558		0.0062	0.3743	0.0208
<i>Hoxd13</i>	similar to Homeobox protein Hox-D13 (Hox-4.8)	0.2550		0.0029	0.2967	0.0040
<i>Prm2</i>	protamine 2	0.2550		0.0137	0.2367	0.0088
<i>Loc682990</i>	hypothetical protein	0.2550		0.0361	0.3375	0.0358
<i>Loc689417</i>	hypothetical protein	0.2549		0.0324	0.3782	0.0284
<i>Loc683138</i>	hypothetical protein	0.2547		0.0262	0.2926	0.0261
<i>Rgd1560527</i>	similar to serine/threonine kinase	0.2546		0.0114	0.3095	0.0126
<i>Rgd1560474</i>	similar to Leukosialin precursor (Leucocyte sialoglycoprotein) (Sialophorin) (CD43) (W3/13 antigen)	0.2545		0.0235	0.2439	0.0085
<i>Rgd1560986</i>	similar to testis expressed sequence 14 isoform b	0.2543		0.0065	0.3506	0.0139
#N/A	hypothetical protein	0.2542		0.0223	0.3685	0.0332
<i>Defb22</i>	defensin beta 22	0.2542		0.0027	0.3095	0.0055
<i>Csf2</i>	similar to Granulocyte-macrophage colony-stimulating factor (GM-CSF) (Colony-stimulating factor) (CSF)	0.2539		0.0131	0.2284	0.0084
<i>Pnmt</i>	similar to Phenylethanolamine N- methyltransferase (PNMTase) (Noradrenaline N-methyltransferase)	0.2539		0.0054	0.3809	0.0156
<i>Loc685965</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2537		0.0422	0.2837	0.0333
<i>Loc688361</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.2536		0.0222	0.2887	0.0153
<i>Abcg8</i>	ATP-binding cassette, sub-family G (WHITE), member 8	0.2535		0.0114	0.2897	0.0170

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc310487</i>	similar to purinergic receptor P2Y, G-protein coupled, 4	0.2533		0.0093	0.1691	0.0046
<i>Stac3</i>	similar to SH3 and cysteine rich domain 3	0.2532		0.0036	0.3548	0.0160
<i>Creb3l4</i>	cAMP responsive element binding protein 3-like 4	0.2532		0.0050	0.3662	0.0097
<i>Rgd1561339</i>	hypothetical protein	0.2530		0.0258	0.3780	0.0283
<i>Loc689458</i>	similar to vitamin A-deficient testicular protein 11-like	0.2529		0.0222	0.3730	0.0243
<i>Loc689983</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2527		0.0327	0.2751	0.0382
<i>Tm4sf5</i>	similar to transmembrane 4 superfamily member 5	0.2526		0.0202	0.3211	0.0250
<i>Loc684779</i>	hypothetical protein	0.2525		0.0400	0.2688	0.0143
<i>Rgd1560588</i>	hypothetical protein	0.2522		0.0338	0.3098	0.0272
<i>Gzmf</i>	natural killer cell protease 7	0.2522		0.0077	0.2745	0.0046
<i>Loc289918</i>	similar to Glutaredoxin-1 (Thioltransferase-1) (TTase-1)	0.2521		0.0376	0.2835	0.0327
<i>Loc683313</i>	similar to keratin complex 2, basic, gene 6a isoform 1	0.2520		0.0116	0.2988	0.0125
<i>Loc691479</i>	hypothetical protein	0.2517		0.0253	0.3319	0.0196
<i>Ly6al</i>	similar to Ly6-B antigen gene	0.2515		0.0109	0.3300	0.0132
<i>Loc688720</i>	hypothetical protein	0.2514		0.0107	0.2927	0.0107
<i>Loc690885</i>	similar to NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 6, 17kDa isoform 2	0.2510		0.0180	0.3011	0.0240
<i>Mat1a</i>	methionine adenosyltransferase I, alpha	0.2499		0.0039	0.3905	0.0068
<i>Ggn</i>	gametogenetin	0.2498		0.0111	0.3032	0.0174

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1561620</i>	similar to Nucleolar GTP-binding protein 1 (Chronic renal failure gene protein) (GTP- binding protein NGB)	0.2497		0.0475	0.2911	0.0432
<i>Rgd1560516</i>	hypothetical protein	0.2496		0.0469	0.3348	0.0375
<i>Loc679832</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.2495		0.0270	0.3426	0.0100
<i>Rgd1565689</i>	hypothetical protein	0.2495		0.0072	0.4472	0.0392
<i>Loc367597</i>	similar to nidogen 2	0.2487		0.0290	0.3648	0.0259
<i>Lyg1</i>	similar to Lysozyme g-like protein 1 precursor	0.2484		0.0131	0.3399	0.0294
<i>Actl9</i>	similar to T25C8.2	0.2479		0.0097	0.2599	0.0076
<i>Loc686576</i>	hypothetical protein	0.2474		0.0133	0.3311	0.0086
<i>Loc686432</i>	hypothetical protein	0.2473		0.0202	0.2666	0.0201
<i>Ppyr1</i>	pancreatic polypeptide receptor 1	0.2473		0.0068	0.2954	0.0200
<i>Loc687003</i>	hypothetical protein	0.2472		0.0123	0.3688	0.0303
<i>Rgd1564321</i>	similar to diamine oxidase-like protein 2	0.2466		0.0141	0.2963	0.0241
<i>Ppp1r3e</i>	similar to Protein phosphatase 1 regulatory subunit 3D (Protein phosphatase 1, regulatory subunit 6) (Protein phosphatase 1-binding subunit R6)	0.2466		0.0176	0.2904	0.0124
<i>Defb23</i>	beta-defensin 23	0.2465		0.0062	0.4060	0.0225
<i>Loc501271</i>	hypothetical protein	0.2465		0.0372	0.3335	0.0446
<i>Loc681743</i>	hypothetical protein	0.2461		0.0207	0.3182	0.0178
<i>Rgd1564409</i>	similar to par-1 CG8201-PO, isoform O	0.2454		0.0412	0.2335	0.0295
<i>Loc498518</i>	similar to mast cell protease 1	0.2445		0.0459	0.2813	0.0313

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Sgk2</i>	similar to Serine/threonine-protein kinase Sgk2 (Serum/glucocorticoid-regulated kinase 2)	0.2445		0.0032	0.3042	0.0068
<i>Loc686237</i>	similar to oocyte specific homeobox 3	0.2445		0.0291	0.2647	0.0197
<i>Klf17</i>	similar to Zinc finger protein 393	0.2444		0.0054	0.4592	0.0318
<i>Loc690469</i>	hypothetical protein	0.2438		0.0217	0.2337	0.0146
<i>Rgd1560019</i>	similar to Glutactin CG9280-PA, isoform A	0.2437		0.0195	0.3233	0.0257
<i>Loc688828</i>	similar to Nucleoside diphosphate-linked moiety X motif 16 (Nudix motif 16)	0.2435		0.0026	0.2798	0.0042
<i>Cldn18</i>	similar to claudin 18 isoform 2	0.2434		0.0280	0.2457	0.0129
<i>Loc500908</i>	hypothetical protein	0.2432		0.0074	0.3426	0.0188
<i>Rgd1563034</i>	similar to ETS domain-containing transcription factor ERF (Ets2 repressor factor)	0.2428		0.0015	0.2181	0.0086
<i>Morc2b</i>	similar to microrchidia 2B	0.2424		0.0080	0.2966	0.0062
<i>Loc680112</i>	hypothetical protein	0.2421		0.0173	0.2740	0.0096
<i>Lcn5</i>	epididymal retinoic acid-binding protein	0.2409		0.0043	0.3678	0.0113
<i>Loc680306</i>	hypothetical protein	0.2406		0.0105	0.2510	0.0112
<i>Rnf186</i>	similar to ring finger protein 186	0.2405		0.0054	0.2817	0.0098
<i>Fam71f1</i>	hypothetical protein LOC500061	0.2395		0.0089	0.2699	0.0103
<i>Cox8c</i>	cytochrome c oxidase subunit 8C	0.2394		0.0222	0.2712	0.0089
<i>Loc679276</i>	hypothetical protein	0.2392		0.0265	0.3533	0.0243
<i>Slc6a19</i>	solute carrier family 6, member 19	0.2387		0.0085	0.3006	0.0111
<i>Loc680429</i>	hypothetical protein	0.2387		0.0158	0.3232	0.0241
<i>Rgd1559726</i>	hypothetical protein LOC317324	0.2385		0.0099	0.3429	0.0191
<i>Ubtfl1</i>	similar to Nucleolar transcription factor 1 (Upstream-binding factor 1) (UBF-1)	0.2383		0.0310	0.3134	0.0382

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Pnpla5</i>	similar to patatin-like phospholipase domain containing 5	0.2382		0.0016	0.3014	0.0015
<i>Hes3</i>	hairy and enhancer of split 3	0.2382		0.0075	0.3708	0.0189
<i>Loc691775</i>	hypothetical protein	0.2382		0.0214	0.2762	0.0078
<i>Loc680431</i>	similar to double homeobox 4c	0.2377		0.0296	0.2774	0.0395
<i>Prss34</i>	similar to protease, serine, 34	0.2377		0.0038	0.3560	0.0051
<i>Loc680431</i>	similar to unc-4 CG6269-PA	0.2377		0.0247	0.3130	0.0347
<i>Spn</i>	similar to Leukosialin precursor (Leucocyte sialoglycoprotein) (Sialophorin) (CD43) (W3/13 antigen)	0.2371		0.0023	0.3391	0.0039
<i>Loc682210</i>	similar to double homeobox 4c	0.2367		0.0157	0.3179	0.0228
<i>Rgd1563425</i>	hypothetical protein	0.2362		0.0060	0.3049	0.0151
<i>Vegp1</i>	von Ebners gland protein 2	0.2360		0.0180	0.3076	0.0378
<i>Slc13a2</i>	solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2	0.2359		0.0090	0.2540	0.0276
<i>Loc680012</i>	similar to tolloid-like 2	0.2355		0.0017	0.2013	0.0003
<i>Il3</i>	interleukin 3	0.2353		0.0041	0.3885	0.0265
<i>Loc685469</i>	similar to nidogen 2	0.2350		0.0375	0.2724	0.0210
<i>Loc679800</i>	similar to MIC2 like 1	0.2346		0.0291	0.3514	0.0249
<i>Crybb2</i>	crystallin, beta B2	0.2342		0.0213	0.3098	0.0489
<i>Loc690411</i>	hypothetical protein	0.2333		0.0348	0.2624	0.0334
<i>Tusc5</i>	tumor suppressor candidate 5	0.2333		0.0121	0.3277	0.0306
<i>Rgd1560019</i>	similar to Variable charge X-linked protein 1 (VCX-B1 protein) (Variably charged protein X-B1) (Variable charge protein on X with ten repeats) (VCX-10r)	0.2331		0.0107	0.3191	0.0175

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562948</i>	similar to acetyl-Coenzyme A acetyltransferase 2	0.2324		0.0247	0.2594	0.0220
<i>Loc501274</i>	hypothetical protein	0.2319		0.0135	0.2947	0.0153
<i>Loc688406</i>	hypothetical protein	0.2315		0.0021	0.4221	0.0077
<i>Plac1</i>	placenta-specific 1	0.2314		0.0366	0.3409	0.0154
<i>Loc683698</i>	similar to DNA-directed RNA polymerase II largest subunit	0.2308		0.0212	0.2736	0.0210
<i>Tulp1</i>	similar to Tubby-related protein 1 (Tubby-like protein 1)	0.2298		0.0060	0.3108	0.0060
<i>Loc680401</i>	similar to Daxx-like protein CG9537-PA	0.2297		0.0202	0.2997	0.0176
<i>Loc686387</i>	similar to paired immunoglobulin-like type 2 receptor alpha	0.2297		0.0021	0.4831	0.0184
<i>Loc688327</i>	similar to glycoprotein A33 (transmembrane)	0.2295		0.0034	0.3571	0.0082
<i>Loc680636</i>	hypothetical protein	0.2295		0.0025	0.3981	0.0490
<i>Rgd1564843</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2292		0.0453	0.2360	0.0368
<i>Loc689983</i>	hypothetical protein	0.2291		0.0467	0.2715	0.0138
<i>Rgd1562282</i>	similar to Keratin-associated protein 5-4 (Keratin-associated protein 5.4) (Ultrahigh sulfur keratin-associated protein 5.4)	0.2290		0.0218	0.2692	0.0210
<i>Loc691108</i>	hypothetical protein	0.2285		0.0206	0.3262	0.0231
<i>Loc688902</i>	similar to Spetex-2C protein	0.2282		0.0027	0.4018	0.0090
<i>Loc685908</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.2280		0.0264	0.3420	0.0418
<i>Loc683177</i>	hypothetical protein	0.2273		0.0316	0.1768	0.0188

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687961</i>	similar to keratin complex 2, basic, gene 6a	0.2268		0.0264	0.2643	0.0187
<i>Ahsg</i>	alpha-2-HS-glycoprotein	0.2263		0.0058	0.2920	0.0034
<i>Loc687999</i>	hypothetical protein	0.2261		0.0180	0.3178	0.0147
<i>Loc680431</i>	similar to double homeobox 4c	0.2253		0.0096	0.2727	0.0345
<i>Loc501417</i>	hypothetical protein	0.2250		0.0386	0.3254	0.0396
<i>Tcp10b</i>	similar to t-complex protein 10b	0.2249		0.0097	0.3275	0.0150
<i>Loc680431</i>	similar to double homeobox, 4	0.2248		0.0152	0.3287	0.0295
<i>Loc680431</i>	similar to double homeobox 4c	0.2244		0.0128	0.2811	0.0249
<i>Rgd1306008</i>	hypothetical protein	0.2244		0.0097	0.2814	0.0096
<i>Loc363320</i>	hypothetical protein	0.2242		0.0051	0.3837	0.0190
<i>Loc500815</i>	similar to par-1 CG8201-PO, isoform O	0.2240		0.0493	0.2674	0.0403
<i>Uts2r</i>	urotensin 2 receptor	0.2238		0.0020	0.2592	0.0060
<i>Taar7e</i>	trace-amine-associated receptor 7e	0.2236		0.0459	0.2841	0.0235
<i>Loc681139</i>	similar to Keratin-associated protein 5-4 (Keratin-associated protein 5.4) (Ultrahigh sulfur keratin-associated protein 5.4)	0.2233		0.0226	0.2653	0.0240
<i>Loc685349</i>	hypothetical protein	0.2232		0.0434	0.3096	0.0400
<i>Cyp11b2</i>	cytochrome P450, family 11, subfamily B, polypeptide 2	0.2229		0.0024	0.3330	0.0138
<i>Rgd1565094</i>	hypothetical protein	0.2229		0.0089	0.3081	0.0182
<i>Loc689973</i>	similar to pigpen	0.2228		0.0337	0.2382	0.0172
<i>Loc292516</i>	hypothetical protein LOC292516	0.2227		0.0106	0.2865	0.0090
<i>Obp2b</i>	odorant binding protein 2B	0.2226		0.0096	0.2407	0.0230

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689519</i>	similar to Transcriptional enhancer factor TEF-3 (TEA domain family member 4) (TEAD-4) (ETF-related factor 2) (ETFR-2) (TEF-1-related factor 1) (TEF-1-related factor FR-19) (RTEF-1)	0.2224		0.0096	0.3455	0.0199
<i>Loc680431</i>	similar to double homeobox 4c	0.2223		0.0077	0.2746	0.0231
<i>Loc688361</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.2223		0.0258	0.2773	0.0358
<i>Loc685526</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.2218		0.0475	0.2683	0.0379
<i>Krt33a</i>	type I hair keratin KA27	0.2215		0.0073	0.3024	0.0061
<i>Loc690059</i>	similar to chromosome 9 open reading frame 36	0.2214		0.0140	0.3431	0.0252
<i>Loc690645</i>	similar to Kallikrein-2 precursor (Tissue kallikrein-2) (Glandular kallikrein-1) (hGK-1)	0.2213		0.0101	0.3114	0.0361
<i>Mc3r</i>	melanocortin 3 receptor	0.2212		0.0076	0.2166	0.0058
<i>Loc680431</i>	similar to double homeobox 4c	0.2209		0.0086	0.2693	0.0218
<i>Btnl8</i>	butyrophilin-like 8	0.2189		0.0493	0.2269	0.0230
<i>Klk15</i>	similar to kallikrein 15	0.2188		0.0280	0.2776	0.0221
<i>Loc680431</i>	similar to double homeobox 4c	0.2186		0.0107	0.2786	0.0172
<i>Loc679551</i>	similar to MIC2 like 1	0.2181		0.0372	0.3005	0.0168
<i>Loc686165</i>	hypothetical protein	0.2180		0.0119	0.3187	0.0171
<i>Loc361188</i>	similar to WD repeat domain 17	0.2178		0.0138	0.3142	0.0256
<i>Loc680431</i>	similar to double homeobox 4c	0.2177		0.0121	0.2661	0.0187
<i>Loc680431</i>	similar to double homeobox 4c	0.2176		0.0113	0.2565	0.0116
<i>Loc689136</i>	hypothetical protein	0.2172		0.0026	0.2477	0.0038
<i>Muc6</i>	similar to mucin 6, gastric	0.2169		0.0169	0.4288	0.0387

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc690075</i>	hypothetical protein	0.2169		0.0222	0.2836	0.0318
<i>Rt1-M2</i>	RT1 class Ib, locus M2	0.2168		0.0258	0.2013	0.0157
<i>Btnl8</i>	similar to butyrophilin-like 7	0.2164		0.0297	0.2200	0.0077
<i>Loc501210</i>	hypothetical protein	0.2162		0.0063	0.2442	0.0197
<i>Loc680431</i>	similar to double homeobox 4c	0.2161		0.0053	0.2788	0.0168
<i>Lpo</i>	similar to lactoperoxidase	0.2156		0.0098	0.3043	0.0139
<i>Loc688935</i>	similar to serine/threonine kinase	0.2155		0.0234	0.2696	0.0333
<i>Loc680431</i>	similar to double homeobox, 4	0.2155		0.0162	0.3187	0.0370
<i>Lrrc52</i>	hypothetical protein LOC289199	0.2153		0.0107	0.3324	0.0266
<i>Loc685392</i>	hypothetical protein	0.2151		0.0280	0.2341	0.0238
<i>Loc680431</i>	similar to double homeobox 4c	0.2145		0.0112	0.2926	0.0233
<i>Loc689281</i>	hypothetical protein	0.2144		0.0162	0.3240	0.0407
<i>Rgd1559493</i>	hypothetical protein	0.2144		0.0060	0.2414	0.0065
<i>Loc690928</i>	similar to Hornerin	0.2137		0.0422	0.2160	0.0270
<i>Loc690071</i>	hypothetical protein	0.2135		0.0227	0.2971	0.0370
<i>Loc687140</i>	hypothetical protein	0.2135		0.0145	0.3099	0.0426
<i>Odf1</i>	outer dense fiber of sperm tails 1	0.2134		0.0119	0.2660	0.0379
<i>Rgd1561216</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2131		0.0337	0.3333	0.0284
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.2131		0.0481	0.2536	0.0424
<i>Loc691679</i>	hypothetical protein	0.2127		0.0357	0.2783	0.0248
<i>Loc301193</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.2125		0.0421	0.3024	0.0356
<i>Loc363413</i>	similar to MIC2 like 1	0.2124		0.0297	0.3144	0.0446
<i>Pabpc2</i>	similar to poly A binding protein, cytoplasmic 2	0.2121		0.0187	0.3047	0.0262

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc687913</i>	hypothetical protein	0.2120		0.0139	0.2258	0.0135
<i>Loc680401</i>	similar to Daxx-like protein CG9537-PA	0.2120		0.0112	0.2867	0.0165
<i>Rgd1560174</i>	hypothetical protein	0.2119		0.0017	0.2115	0.0052
<i>Loc501369</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.2116		0.0230	0.3485	0.0309
<i>Lhx4</i>	similar to LIM homeobox protein 4	0.2116		0.0049	0.2782	0.0117
<i>Loc684821</i>	hypothetical protein	0.2115		0.0092	0.2431	0.0162
<i>Hcn4</i>	hyperpolarization-activated, cyclic nucleotide-gated K ⁺ 4	0.2114		0.0127	0.2881	0.0177
<i>Loc680431</i>	similar to gooseberry-neuro CG2692-PA	0.2111		0.0184	0.2716	0.0312
<i>Ubqln3</i>	similar to ubiquilin 3	0.2105		0.0150	0.2359	0.0273
<i>Rgd1561281</i>	similar to keratin associated protein 2-4	0.2102		0.0232	0.2900	0.0232
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.2094		0.0396	0.2337	0.0258
<i>Rgd1560178</i>	similar to KIAA0999 protein	0.2087		0.0269	0.2960	0.0425
<i>Rgd1560257</i>	similar to WD repeat domain 49	0.2087		0.0098	0.2911	0.0291
<i>Loc680431</i>	similar to double homeobox 4c	0.2086		0.0071	0.2733	0.0122
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.2069		0.0207	0.2399	0.0106
<i>Loc688924</i>	hypothetical protein	0.2062		0.0075	0.2422	0.0097
<i>Loc680431</i>	similar to double homeobox, 1	0.2055		0.0182	0.2790	0.0199
<i>Loc683308</i>	similar to extraembryonic, spermatogenesis, homeobox 1-like	0.2042		0.0313	0.2273	0.0324
<i>Loc686860</i>	similar to RT1 class I, CE15	0.2041		0.0184	0.2781	0.0413
<i>Loc680431</i>	similar to double homeobox 4c	0.2039		0.0177	0.2811	0.0209
<i>Rgd1560570</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.2039		0.0391	0.3230	0.0363
<i>Loc680459</i>	hypothetical protein	0.2036		0.0111	0.2518	0.0433

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Trim71</i>	similar to abnormal cell LINEage family member (lin-41)	0.2034		0.0021	0.2774	0.0104
<i>Loc685484</i>	hypothetical protein	0.2032		0.0356	0.2462	0.0289
<i>Rya3</i>	similar to Long palate, lung and nasal epithelium carcinoma-associated protein 3 precursor (Ligand-binding protein RYA3)	0.2028		0.0041	0.2642	0.0109
<i>Loc683970</i>	similar to mitochondrial capsule selenoprotein	0.2023		0.0319	0.2749	0.0106
<i>Rgd1563427</i>	similar to sentrin 18	0.2023		0.0147	0.2624	0.0171
<i>Serpina9</i>	OL-64 protein	0.2021		0.0196	0.2191	0.0137
<i>Loc501274</i>	hypothetical protein	0.2017		0.0296	0.2788	0.0351
<i>Rgd1561656</i>	similar to Aggrecan core protein precursor (Cartilage-specific proteoglycan core protein) (CSPCP)	0.2017		0.0437	0.2909	0.0338
<i>Rgd1563427</i>	similar to sentrin 18	0.2016		0.0265	0.2840	0.0302
<i>Loc684077</i>	similar to X-linked lymphocyte-regulated 5C	0.2013		0.0110	0.1890	0.0076
<i>Rgd1564205</i>	similar to mucin 17	0.2011		0.0348	0.2644	0.0242
<i>Loc684581</i>	similar to ESO3 protein	0.2010		0.0041	0.2093	0.0046
<i>Loc685817</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.2005		0.0184	0.2478	0.0269
<i>Kcnj1</i>	potassium inwardly-rectifying channel, subfamily J, member 1	0.2002		0.0292	0.2599	0.0199
<i>Loc688127</i>	similar to mucin 17	0.2001		0.0149	0.2983	0.0339
<i>Loc685841</i>	hypothetical protein	0.2000		0.0057	0.3056	0.0066
<i>Rgd1565209</i>	similar to kinesin family member 25 isoform 1	0.1996		0.0458	0.2182	0.0354
<i>Rgd1307805</i>	hypothetical protein	0.1994		0.0122	0.4311	0.0210

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)	
		Fold Change	p-Value	Fold Change	p-Value
<i>Rgd1562216</i>	similar to Transcriptional enhancer factor TEF-3 (TEA domain family member 4) (TEAD-4) (ETF-related factor 2) (ETFR-2) (TEF-1-related factor 1) (TEF-1-related factor FR-19) (RTEF-1)	0.1990		0.0163	0.3300 0.0277
<i>Rgd1565911</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1989		0.0323	0.3020 0.0394
<i>Loc690041</i>	similar to X-linked lymphocyte-regulated protein 3A	0.1986		0.0232	0.2755 0.0211
<i>Tssk5</i>	similar to serine/threonine kinase 22A (spermiogenesis associated); testis-specific serine/threonine kinase	0.1986		0.0039	0.3301 0.0038
<i>Loc679174</i>	similar to Filaggrin	0.1979		0.0094	0.2765 0.0155
<i>Loc689983</i>	hypothetical protein	0.1973		0.0293	0.2262 0.0175
<i>Loc688991</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.1971		0.0358	0.2410 0.0228
<i>Rgd1565225</i>	similar to Interferon alpha-1 precursor	0.1966		0.0442	0.2033 0.0053
<i>Loc680652</i>	hypothetical protein	0.1964		0.0031	0.3093 0.0040
<i>Loc681275</i>	hypothetical protein	0.1963		0.0287	0.2776 0.0365
<i>Loc689767</i>	hypothetical protein	0.1963		0.0160	0.2298 0.0084
<i>Obp3</i>	alpha-2u globulin PGCL3	0.1960		0.0484	0.2879 0.0090
<i>Noto</i>	similar to notochord	0.1958		0.0046	0.2814 0.0062
<i>Capn11</i>	calpain 11	0.1958		0.0108	0.2251 0.0137
<i>Hoxa10</i>	similar to Homeobox protein Hox-A10 (Hox-1.8)	0.1951		0.0005	0.4009 0.0294
<i>Loc688069</i>	similar to PRAME family member 3	0.1946		0.0265	0.2764 0.0165
<i>Loc680431</i>	similar to double homeobox 4c	0.1944		0.0213	0.2586 0.0321

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Grhl3</i>	similar to transcription factor CP2-like 4	0.1944		0.0014	0.2389	0.0016
<i>Loc501901</i>	similar to PRAME family member DJ1198H6.2	0.1936		0.0194	0.3265	0.0480
<i>Loc501333</i>	hypothetical protein	0.1936		0.0073	0.2748	0.0183
<i>Loc681332</i>	hypothetical protein	0.1934		0.0152	0.2645	0.0256
<i>Rgd1562467</i>	similar to par-1 CG8201-PO, isoform O	0.1929		0.0344	0.2984	0.0456
<i>Loc690167</i>	hypothetical protein	0.1928		0.0331	0.2191	0.0175
<i>Loc689299</i>	similar to serine/threonine kinase	0.1928		0.0236	0.2509	0.0278
<i>Loc680886</i>	hypothetical protein	0.1925		0.0175	0.2403	0.0171
<i>Loc685160</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P- dlg)	0.1924		0.0307	0.2127	0.0184
<i>Loc687502</i>	hypothetical protein	0.1922		0.0203	0.2653	0.0311
<i>Loc681020</i>	hypothetical protein	0.1921		0.0399	0.2284	0.0338
<i>Loc691117</i>	similar to chromosome 9 open reading frame 36	0.1916		0.0195	0.3118	0.0293
<i>Loc690851</i>	hypothetical protein	0.1916		0.0190	0.2667	0.0323
<i>Loc688874</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1915		0.0176	0.2503	0.0189
<i>Rgd1565623</i>	similar to Interferon alpha-1 precursor	0.1913		0.0495	0.2224	0.0231
<i>Loc679613</i>	hypothetical protein	0.1908		0.0305	0.1702	0.0099
<i>Loc689199</i>	similar to androgen-binding protein eta	0.1902		0.0058	0.3228	0.0285
<i>Cyp11b1</i>	similar to Cytochrome P450 11B1, mitochondrial precursor (CYPXIB1) (P450C11) (Steroid 11-beta-hydroxylase) (P450(11 beta)-DS)	0.1899		0.0120	0.2543	0.0134
<i>Loc683138</i>	hypothetical protein	0.1899		0.0300	0.1996	0.0250
<i>Loc300024</i>	similar to Ly6-B antigen gene	0.1898		0.0284	0.2511	0.0424

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1562011</i>	similar to MAS-related G-protein coupled receptor, member G	0.1893		0.0044	0.1770	0.0045
<i>Loc679309</i>	hypothetical protein	0.1888		0.0137	0.2214	0.0133
<i>Mc5r</i>	melanocortin 5 receptor	0.1887		0.0083	0.2024	0.0068
<i>Dnajb8</i>	similar to Dnaj homolog subfamily B member 8 (mDJ6)	0.1883		0.0020	0.2221	0.0043
<i>Loc689338</i>	similar to RIKEN cDNA 5031410I06	0.1881		0.0244	0.2379	0.0136
<i>Loc501180</i>	hypothetical protein LOC501180	0.1876		0.0124	0.2527	0.0249
<i>Bdkrb1</i>	B1 bradykinin receptor	0.1869		0.0048	0.2389	0.0067
<i>Loc690280</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.1865		0.0196	0.2427	0.0167
<i>Loc679336</i>	hypothetical protein	0.1865		0.0125	0.2557	0.0178
<i>Loc688803</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1859		0.0232	0.2753	0.0203
<i>Loc679936</i>	hypothetical protein	0.1854		0.0219	0.2486	0.0167
<i>Loc685366</i>	similar to SPANX-N2 protein	0.1852		0.0205	0.3262	0.0424
<i>Loc501274</i>	hypothetical protein	0.1851		0.0345	0.2050	0.0169
<i>Loc690324</i>	hypothetical protein	0.1845		0.0029	0.2429	0.0019
<i>Loc685110</i>	hypothetical protein isoform 2	0.1838		0.0238	0.1989	0.0191
<i>Loc688825</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1837		0.0190	0.2602	0.0159
<i>Loc691627</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.1836		0.0237	0.2266	0.0208
<i>Loc689983</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4a	0.1832		0.0419	0.2163	0.0240

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Rgd1563247</i>	similar to RNA-binding motif protein, Y chromosome, family 1 member A1 (RNA-binding motif protein 1)	0.1825		0.0264	0.2156	0.0240
<i>Loc681380</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4b	0.1825		0.0438	0.2577	0.0372
<i>Loc685110</i>	hypothetical protein isoform 1	0.1824		0.0265	0.2141	0.0277
<i>Loc688798</i>	similar to MIC2 like 1	0.1824		0.0349	0.2764	0.0358
<i>Loc363320</i>	hypothetical protein	0.1820		0.0171	0.3116	0.0295
<i>Loc682310</i>	hypothetical protein	0.1813		0.0118	0.2665	0.0308
<i>Loc690998</i>	hypothetical protein	0.1810		0.0097	0.2819	0.0183
<i>Loc691401</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.1810		0.0305	0.2114	0.0227
<i>Loc691334</i>	hypothetical protein	0.1807		0.0073	0.2864	0.0155
<i>Loc689983</i>	similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg)	0.1807		0.0244	0.2227	0.0113
<i>Rgd1560918</i>	similar to Spetex-2F protein	0.1804		0.0299	0.2403	0.0194
<i>Loc687652</i>	similar to CG11585-PA	0.1803		0.0205	0.2159	0.0164
<i>Rgd1562853</i>	similar to PRAME family member 8	0.1798		0.0353	0.2402	0.0372
<i>Loc681979</i>	similar to granzyme C	0.1797		0.0490	0.2356	0.0371
<i>Loc688361</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1797		0.0168	0.2017	0.0120
<i>Loc682515</i>	similar to CG13990-PA	0.1797		0.0094	0.2083	0.0068
<i>Loc689845</i>	hypothetical protein	0.1793		0.0211	0.2367	0.0153
<i>Hoxc6</i>	similar to homeobox C6	0.1785		0.0123	0.2277	0.0083
<i>Loc501901</i>	similar to PRAME family member DJ1198H6.2	0.1779		0.0278	0.2576	0.0277

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc684709</i>	similar to putative membrane protein Re9	0.1778		0.0115	0.3142	0.0164
<i>Loc680387</i>	similar to CG13990-PA	0.1778		0.0183	0.2062	0.0123
<i>Loc679696</i>	hypothetical protein	0.1778		0.0302	0.2762	0.0311
<i>Wnt3a</i>	similar to Protein Wnt-3a precursor	0.1772		0.0091	0.3309	0.0162
<i>Rgd1563427</i>	similar to sentrin 18	0.1772		0.0320	0.2409	0.0254
<i>Loc688532</i>	similar to F35C5.3	0.1770		0.0108	0.2598	0.0349
<i>Loc679345</i>	hypothetical protein	0.1768		0.0097	0.2189	0.0108
<i>Elovl3</i>	similar to Elongation of very long chain fatty acids protein 3 (Cold-inducible glycoprotein of 30 kDa) (CIN-2)	0.1767		0.0074	0.2952	0.0255
<i>Rgd1564814</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1766		0.0487	0.2300	0.0294
<i>Rgd1561281</i>	similar to keratin associated protein 2-4	0.1766		0.0252	0.2440	0.0227
<i>Rgd1564321</i>	similar to diamine oxidase-like protein 2	0.1764		0.0066	0.2756	0.0177
<i>Loc689884</i>	hypothetical protein	0.1764		0.0225	0.2036	0.0109
<i>Cyp2b12</i>	similar to Cytochrome P450 2B2 (CYPIIB2) (P450E) (P450 PB4)	0.1758		0.0117	0.3392	0.0157
<i>Senp17</i>	sentrin 18	0.1738		0.0452	0.1811	0.0327
<i>Vom2r63</i>	similar to putative pheromone receptor (Go-VN5)	0.1737		0.0425	0.2969	0.0432
<i>Loc685366</i>	similar to SPANX-N2 protein	0.1734		0.0120	0.2620	0.0199
<i>Rgd1565859</i>	hypothetical protein	0.1732		0.0166	0.2144	0.0143
<i>Rgd1559932</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1726		0.0328	0.2593	0.0251
<i>Loc691070</i>	hypothetical protein	0.1725		0.0077	0.2925	0.0178
<i>Loc681979</i>	similar to granzyme C	0.1725		0.0199	0.2041	0.0131
<i>Loc684915</i>	similar to zonadhesin isoform 3	0.1718		0.0074	0.2434	0.0203

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Btnl8</i>	similar to butyrophilin-like 8	0.1711		0.0301	0.1880	0.0050
<i>Rgd1560539</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1711		0.0427	0.2719	0.0323
<i>Loc685403</i>	hypothetical protein	0.1711		0.0066	0.2402	0.0127
<i>Loc679467</i>	hypothetical protein	0.1708		0.0325	0.1865	0.0279
<i>Loc689983</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4a	0.1707		0.0317	0.1901	0.0184
<i>Loc502553</i>	similar to TD and POZ domain containing 4	0.1705		0.0302	0.2092	0.0251
<i>Loc501388</i>	similar to Protein C9orf79	0.1701		0.0167	0.2320	0.0214
<i>Krt4</i>	type II keratin Kb4	0.1695		0.0045	0.2941	0.0045
<i>Rgd1308564</i>	similar to L-amino acid oxidase 1	0.1692		0.0067	0.3845	0.0378
<i>Loc685019</i>	similar to serine/threonine kinase	0.1691		0.0184	0.2667	0.0318
<i>Loc366780</i>	similar to H39E23.3	0.1682		0.0070	0.3174	0.0265
<i>Rgd1562268</i>	hypothetical protein	0.1682		0.0048	0.2744	0.0449
<i>Hoxa2</i>	homeobox A2	0.1682		0.0136	0.2523	0.0199
<i>Loc296778</i>	similar to Integrin alpha-6 precursor (VLA- 6) (CD49f antigen)	0.1679		0.0275	0.2187	0.0258
<i>Rgd1562035</i>	similar to Mast cell protease I precursor (RMCP-I) (RMCP-1) (Chymase) (Chymotrysin-like protease) (CLIP protein)	0.1676		0.0461	0.2251	0.0345
<i>Rgd1562650</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1671		0.0367	0.2854	0.0266
<i>Lif</i>	leukemia inhibitory factor	0.1664		0.0012	0.2153	0.0007
<i>Rgd1564791</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.1662		0.0177	0.2472	0.0112
<i>Loc680220</i>	similar to CG40323-PB.3	0.1660		0.0237	0.2213	0.0322
<i>Rgd1563427</i>	similar to sentrin 18	0.1654		0.0130	0.1940	0.0134

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc689753</i>	similar to K06A9.1b	0.1653		0.0379	0.2475	0.0430
<i>Loc306312</i>	similar to RNA polymerase II transcription factor SIII subunit A2 (Elongin A2) (EloA2) (Transcription elongation factor B polypeptide 3B)	0.1651		0.0205	0.2101	0.0162
<i>Rgd1562650</i>	similar to interferon alpha 8/6 precursor; IFNa8/6	0.1647		0.0370	0.2657	0.0283
<i>Loc686143</i>	similar to keratinocytes proline-rich protein	0.1642		0.0114	0.2221	0.0095
<i>Loc688924</i>	hypothetical protein	0.1633		0.0106	0.2167	0.0116
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.1632		0.0302	0.1818	0.0237
<i>Rgd1561828</i>	hypothetical protein	0.1631		0.0324	0.2378	0.0319
<i>Loc691117</i>	similar to chromosome 9 open reading frame 36	0.1629		0.0218	0.2449	0.0284
<i>Loc688164</i>	hypothetical protein	0.1628		0.0170	0.2357	0.0205
<i>Loc688585</i>	hypothetical protein	0.1621		0.0184	0.2771	0.0450
<i>Loc681069</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.1619		0.0109	0.3663	0.0274
<i>Rgd1564843</i>	similar to Ral guanine nucleotide dissociation stimulator (RalGEF) (RalGDS)	0.1615		0.0174	0.1852	0.0096
<i>Rgd1560677</i>	similar to F40G12.3	0.1609		0.0381	0.2017	0.0319
<i>Loc689850</i>	hypothetical protein	0.1604		0.0191	0.1403	0.0105
<i>Loc501274</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.1600		0.0255	0.1627	0.0143
<i>Loc685373</i>	hypothetical protein	0.1598		0.0076	0.2732	0.0204
<i>Loc501230</i>	similar to nidogen 2	0.1595		0.0171	0.2098	0.0267

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688793</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1595		0.0170	0.1410	0.0061
<i>Loc688690</i>	similar to Protein C9orf79	0.1590		0.0221	0.2369	0.0384
<i>Rgd1564877</i>	hypothetical protein	0.1583		0.0082	0.3740	0.0438
<i>Loc690934</i>	similar to Mucin-4 (Tracheobronchial mucin)	0.1581		0.0142	0.2651	0.0441
<i>Loc688588</i>	similar to MIC2 like 1	0.1578		0.0487	0.2336	0.0440
<i>Loc687434</i>	similar to RT1 class I, CE7	0.1577		0.0124	0.1555	0.0084
<i>Rgd1560034</i>	hypothetical protein	0.1575		0.0148	0.2191	0.0133
<i>Timd2</i>	T-cell immunoglobulin and mucin domain containing 2	0.1571		0.0037	0.2725	0.0008
<i>Loc679174</i>	similar to filaggrin	0.1571		0.0056	0.2150	0.0118
<i>Loc501274</i>	similar to Integrin alpha-6 precursor (VLA-6) (CD49f antigen)	0.1569		0.0216	0.1942	0.0186
<i>Loc689199</i>	similar to androgen-binding protein eta	0.1566		0.0056	0.2900	0.0306
<i>Loc680220</i>	similar to CG40323-PB.3	0.1563		0.0081	0.2320	0.0109
<i>Loc689032</i>	hypothetical protein	0.1561		0.0121	0.2428	0.0387
<i>Loc690815</i>	hypothetical protein	0.1554		0.0149	0.1844	0.0073
<i>Loc691219</i>	hypothetical protein	0.1551		0.0094	0.2401	0.0271
<i>Loc685019</i>	similar to serine/threonine kinase	0.1549		0.0164	0.2454	0.0240
<i>Foxi1</i>	similar to forkhead box I1	0.1548		0.0118	0.2060	0.0084
<i>Ka11</i>	type I keratin KA11	0.1534		0.0173	0.1646	0.0156
<i>Loc689734</i>	similar to K06A9.1b	0.1529		0.0352	0.2488	0.0421
<i>Loc690425</i>	similar to keratin associated protein 10-7	0.1523		0.0036	0.2297	0.0058
<i>Loc691142</i>	hypothetical protein	0.1521		0.0138	0.1775	0.0201
<i>Loc691146</i>	similar to chromosome 9 open reading frame 36	0.1513		0.0228	0.2044	0.0205

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc688892</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1512		0.0092	0.2494	0.0067
<i>Loc691800</i>	similar to Myosin-9B (Myosin IXb) (Unconventional myosin-9b)	0.1503		0.0203	0.1711	0.0094
<i>Loc501274</i>	similar to Integrin alpha-6 precursor (VLA-6) (CD49f antigen)	0.1500		0.0274	0.1820	0.0186
<i>Rgd1564409</i>	similar to par-1 CG8201-PO, isoform O	0.1485		0.0072	0.2388	0.0098
<i>Loc688818</i>	similar to NEDD4-binding protein 1 (N4BP1)	0.1484		0.0093	0.1635	0.0045
<i>Rgd1564409</i>	similar to par-1 CG8201-PO, isoform O	0.1475		0.0225	0.1792	0.0258
<i>Loc679174</i>	similar to filaggrin	0.1473		0.0053	0.2109	0.0118
<i>Loc501308</i>	similar to Integrin alpha-6 precursor (VLA-6) (CD49f antigen)	0.1458		0.0488	0.1454	0.0089
<i>Loc689359</i>	similar to serine/arginine repetitive matrix 1	0.1437		0.0063	0.1655	0.0054
<i>Obp3</i>	similar to Major urinary protein precursor (MUP) (Alpha-2u-globulin) (Alpha(2)-euglobulin) (Allergen Rat n 1) (Rat n I)	0.1433		0.0409	0.1765	0.0103
<i>Rgd1563825</i>	similar to K06A9.1b	0.1429		0.0239	0.2641	0.0240
<i>Btnl7</i>	butyrophilin-like 7	0.1402		0.0152	0.1802	0.0049
<i>Loc680282</i>	hypothetical protein	0.1384		0.0185	0.1784	0.0137
<i>Loc685019</i>	similar to serine/threonine kinase	0.1383		0.0121	0.2515	0.0191
<i>Loc681196</i>	similar to paired immunoglobulin-like type 2 receptor beta	0.1382		0.0045	0.2235	0.0085
<i>Rgd1563552 (Predicted)</i>	similar to par-1 CG8201-PO, isoform O	0.1370		0.0390	0.1656	0.0364
<i>Loc689554</i>	similar to spermatogenesis associated glutamate (E)-rich protein 4d	0.1343		0.0184	0.1576	0.0113

Gene Symbol	Function	Testosterone (vs. Placebo)		Estradiol (vs. Placebo)		
		Fold Change	p-Value	Fold Change	p-Value	
<i>Loc298109</i>	alpha-2u globulin PGCL2	0.1332		0.0314	0.1787	0.0112
<i>Rgd1561620</i>	similar to isopentenyl diphosphate delta-isomerase type 2	0.1329		0.0371	0.2258	0.0400
<i>Loc689730</i>	similar to ubiquitin specific peptidase 17 (homolog)	0.1294		0.0167	0.1625	0.0226
<i>Loc501342</i>	similar to Integrin alpha-6 precursor (VLA-6) (CD49f antigen)	0.1283		0.0108	0.1723	0.0045
<i>Loc688450</i>	hypothetical protein	0.1283		0.0164	0.1261	0.0065
<i>Loc690854</i>	similar to Low-density lipoprotein receptor-related protein 4 precursor (Multiple epidermal growth factor-like domains 7)	0.1263		0.0091	0.2156	0.0379
<i>Loc298116</i>	alpha-2u-globulin (L type)	0.1254		0.0362	0.1642	0.0097
<i>Loc683469</i>	similar to RNA polymerase II transcription factor SIII subunit A2 (Elongin A2) (EloA2) (Transcription elongation factor B polypeptide 3B)	0.1233		0.0132	0.1774	0.0225
<i>Loc298111</i>	alpha2u globulin	0.1224		0.0491	0.1674	0.0175