

Probe ID	Gene Symbol	Log ₂ (fold change)	Average Expression	T Value	P Value
ILMN_3059557	Naip5	0.352116569	10.05280212	13.47913068	1.97745E-05
ILMN_2610435	Terf2ip	0.291833334	9.364428047	13.11254932	2.29296E-05
ILMN_2676052	Tef	0.667637502	10.02573352	10.45005619	7.68201E-05
ILMN_2809988	Thumpd3	-0.276794792	8.625249529	-10.40752918	7.84929E-05
ILMN_2660267	Dnm1l	-0.180694224	8.089591821	-10.28747259	8.3451E-05
ILMN_2857580	Rars2	-0.246983738	8.544705422	-9.713993555	0.00011286
ILMN_2604521	NA	-0.250711452	10.02275895	-9.698623967	0.000113802
ILMN_2710773	Mon2	0.211694713	10.16335006	9.517207352	0.000125647
ILMN_2721198	Ggnbp1	0.373252817	8.446839992	9.361168796	0.000137004
ILMN_1221157	Krt8	-0.493884549	13.49073565	-9.357938206	0.000137251
ILMN_2708599	Psmb3	-0.510350376	11.34660909	-9.255949362	0.000145343
ILMN_2435814	Trim11	0.17879683	8.439326994	9.108529895	0.000158048
ILMN_1225264	NA	-0.716982352	10.14593945	-9.080947087	0.000160567
ILMN_1252110	Foxj2	0.294866794	9.020357182	8.938702952	0.00017433
ILMN_2660438	Tank	-0.280639629	8.312642303	-8.858968862	0.000182648
ILMN_2727329	Bckdha	0.366984679	9.435355832	8.844200184	0.000184239
ILMN_2782082	Itm2b	-0.477714319	11.76711519	-8.662398115	0.000205218
ILMN_2750912	Fyco1	0.379747325	9.428191408	8.621964662	0.000210256
ILMN_2728830	Taf13	-0.175317697	9.549981648	-8.506956676	0.000225399
ILMN_2773099	Ppa2	-0.434575839	8.425343823	-8.373399122	0.000244612
ILMN_2595408	NA	-0.302673141	10.02370639	-8.356041404	0.000247247
ILMN_2691815	G3bp2	-0.206158171	8.058756312	-8.341232598	0.000249522
ILMN_1222767	H2afj	0.371991833	8.840343626	8.333209564	0.000250764
ILMN_2817996	Ppa2	-0.683711411	9.013287738	-8.277996907	0.000259513
ILMN_2642806	Prpf40a	-0.149430062	8.219002393	-8.182070618	0.000275578
ILMN_1235447	Nlrc4	0.424779697	9.718758722	8.119186343	0.00028674
ILMN_1230211	Ralgps1	0.327250977	8.853817725	8.117134254	0.000287113
ILMN_1237323	Lman2l	0.535158128	9.857103564	8.104711406	0.000289384
ILMN_2906948	Rapgef6	0.184653792	8.098348727	7.97475462	0.000314439
ILMN_3009738	1600012H06Rik	-0.26986192	8.939888273	-7.910013199	0.000327863
ILMN_2463616	Mtap7	0.332058047	12.72386966	7.906832674	0.000328539
ILMN_2803399	Mcm6	-0.72849969	8.928169325	-7.82565229	0.000346372

ILMN_2714278	NA	0.236962616	8.260884596	7.788046205	0.000355014
ILMN_3100258	Theg	0.122856727	7.983941034	7.653738953	0.000388002
ILMN_2643879	Tcigr1	-0.183320095	7.993449554	-7.552193467	0.000415332
ILMN_2793488	Psma7	-0.567150097	9.734492442	-7.489272812	0.000433393
ILMN_2669540	Cuta	0.434522041	11.40276798	7.453565153	0.00044405
ILMN_2883961	Vamp7	-0.590737028	9.508120977	-7.447964067	0.000445749
ILMN_2420119	Mtdh	-0.259772185	8.663393338	-7.386919885	0.000464768
ILMN_1251856	NA	-0.392691987	9.474017556	-7.342729223	0.000479128
ILMN_2609568	NA	0.27980018	10.91261802	7.339312714	0.00048026
ILMN_1254786	Ech1	-0.232452913	11.88814138	-7.319742064	0.000486802
ILMN_3140788	Ptbp1	0.404580329	11.32498003	7.271452067	0.000503395
ILMN_2692007	4930515G13Rik	0.14649604	7.960252599	7.229906947	0.000518199
ILMN_1250450	Ogfr	0.431001034	10.20589279	7.225806371	0.000519688
ILMN_2680463	Hspbp1	-0.134318137	7.962487858	-7.216622595	0.000523039
ILMN_1244330	Aimp2	-0.313644596	8.386220439	-7.212494716	0.000524554
ILMN_2749336	Uimc1	0.227048821	8.222853061	7.198709454	0.00052965
ILMN_1232280	Fam113a	0.226308203	8.547097889	7.139849458	0.000552068
ILMN_1257962	Ddx1	-0.294600032	8.739407893	-7.133802328	0.000554433
ILMN_2709820	Dtx2	0.162658476	8.458770291	7.116904587	0.000561105
ILMN_1224781	Ndufs2	-0.314618021	8.154599475	-7.088934563	0.000572355
ILMN_2616215	Letmd1	0.135019394	8.780736682	7.083431909	0.000574599
ILMN_2611648	Mrpl16	-0.325295787	8.826052168	-7.077901307	0.000576865
ILMN_2756678	NA	0.359102264	10.02157553	7.039390478	0.000592934
ILMN_2473620	Clip1	-0.235671717	9.136631341	-7.034749124	0.000594905
ILMN_1233857	Mcm6	-0.353062731	8.319688263	-7.025224295	0.000598976
ILMN_2524100	NA	0.356938363	8.954011653	7.021221631	0.000600696
ILMN_3003335	Gcc2	-0.299626776	9.416426148	-6.980406622	0.000618568
ILMN_2670727	Gtf3a	-0.196536966	8.211565922	-6.977793246	0.000619733
ILMN_1254837	Rab7	-0.140687534	7.895232817	-6.972160787	0.000622253
ILMN_2983247	Ndufc1	-0.701122051	9.614657851	-6.953239293	0.000630807
ILMN_2908780	Mzt2	-0.184312121	9.523378854	-6.936465369	0.000638504
ILMN_1234387	NA	-0.280270377	8.054898668	-6.922812074	0.000644851
ILMN_3136542	Gcdh	0.147893896	9.087216589	6.922536143	0.00064498

ILMN_1227815	NA	-0.137697604	8.010879649	-6.916124929	0.000647986
ILMN_2756618	Snw1	0.141562305	8.066313157	6.914715355	0.000648649
ILMN_2649129	Eif2s3x	-0.792901756	9.193258349	-6.8719579	0.000669144
ILMN_1240067	Tsn	-0.222718157	8.63559681	-6.856579659	0.000676698
ILMN_2907642	Rars	-0.292557064	9.67703327	-6.854847483	0.000677556
ILMN_2674281	NA	0.385460907	12.11119879	6.840238906	0.000684835
ILMN_2845980	2410001C21Rik	0.574424876	10.61612222	6.833503136	0.000688222
ILMN_2915861	Psm1	-0.31870811	8.769886283	-6.813158481	0.000698571
ILMN_2694381	Dnajc7	0.520165435	10.47121935	6.812161182	0.000699083
ILMN_2841024	Pnpla1	0.395526022	8.812665975	6.802223805	0.000704208
ILMN_1259621	Fam188a	-0.128358915	8.070086092	-6.791955157	0.00070955
ILMN_3058391	Rap2c	-0.296133541	8.598771832	-6.774847639	0.000718555
ILMN_2741726	Lsm2	-0.285956723	8.411976229	-6.754484525	0.000729447
ILMN_2893081	Mbd1	-0.271504942	9.581994755	-6.735111492	0.000739989
ILMN_2650868	Ino80c	-0.119789325	7.918249073	-6.7266516	0.000744648
ILMN_2491860	Ttyh2	0.608683023	10.04419013	6.725872625	0.000745078
ILMN_1224003	Ptbp1	0.467163768	11.78970345	6.725263708	0.000745415
ILMN_2830771	Spag7	-0.206882488	8.697051356	-6.722077784	0.00074718
ILMN_2695035	Pja2	-0.460362805	9.388483057	-6.711708234	0.00075296
ILMN_2599532	Gdi1	0.297046418	10.28304418	6.71032727	0.000753734
ILMN_2907322	Dtx2	0.301588801	9.228693948	6.702681537	0.000758034
ILMN_2733330	Rps3a	-1.069471608	9.984178187	-6.689139972	0.00076572
ILMN_3004441	Atp5h	-0.22970881	11.3106871	-6.683039467	0.000769212
ILMN_2712731	Phf10	0.289875989	10.04360891	6.676369943	0.000773051
ILMN_1244845	Narf	0.367252097	8.43388415	6.650664847	0.000788057
ILMN_2759730	Tmem144	-0.348495549	8.24009403	-6.618686808	0.000807201
ILMN_2469966	NA	0.358863678	14.7686972	6.601509842	0.000817707
ILMN_2491859	Ttyh2	0.420015645	10.16956882	6.599066442	0.000819214
ILMN_2914295	Tmem160	0.227374139	10.50429013	6.592186909	0.000823475
ILMN_2483948	Specc1	0.3170585	9.305705572	6.590318506	0.000824637
ILMN_2732565	Mrps31	-0.424765508	9.097534739	-6.587481239	0.000826405
ILMN_1236303	Dcaf13	-0.324653865	8.897493759	-6.585225519	0.000827813
ILMN_2623325	NA	0.286534979	9.921584119	6.562346007	0.00084226

ILMN_2760514	Agps	-0.213662005	8.267044809	-6.554280687	0.000847422
ILMN_2647172	Serhl	-0.216219584	8.36510396	-6.545119395	0.00085333
ILMN_1226402	NA	-0.574466134	9.067971223	-6.483760509	0.00089416
ILMN_1243249	NA	0.511973403	10.64880774	6.479849557	0.000896838
ILMN_1247930	Nqo2	-0.268520768	8.244635287	-6.477055441	0.000898757
ILMN_2879382	Med10	-0.241187074	8.189840559	-6.468643892	0.000904564
ILMN_1228475	Ulk1	0.189883536	8.718640327	6.462415097	0.000908892
ILMN_2826304	Fabp6	-1.206621863	9.60436554	-6.44172653	0.000923441
ILMN_2764143	Scap	0.233868285	8.698985988	6.421375557	0.000938017
ILMN_2749327	Pqlc3	-0.277765103	8.183118747	-6.398107788	0.00095501
ILMN_1232589	Kin	0.177158885	8.525219001	6.389781951	0.000961178
ILMN_1251184	Nrf1	0.227180692	9.132033863	6.38461083	0.000965031
ILMN_1242993	NA	-0.58733316	9.69813403	-6.365914668	0.000979115
ILMN_2714500	Tlr12	-0.12815507	7.852773127	-6.358776499	0.000984555
ILMN_1234257	Gtf3c2	0.493596803	10.00482488	6.329565272	0.001007186
ILMN_2649671	NA	0.769940327	11.66619142	6.320526133	0.001014311
ILMN_1249242	Dnajc2	-0.364982085	8.812841686	-6.317070765	0.00101705
ILMN_1225488	Wars2	0.122030284	7.890138375	6.303417993	0.001027956
ILMN_2913269	BC027231	0.239063364	8.359887283	6.294299049	0.001035317
ILMN_2679885	Mocs1	1.148328055	10.03928909	6.289154909	0.001039496
ILMN_1252524	Zfp295	0.193763912	8.407454967	6.274424212	0.001051572
ILMN_1250550	NA	-0.623229424	9.640731038	-6.27117227	0.001054259
ILMN_2657467	Nelf	0.438043151	9.263452142	6.270810452	0.001054559
ILMN_2550962	NA	0.67233142	9.418958255	6.233891285	0.001085648
ILMN_2971721	Fbrsl1	0.303028347	9.505873371	6.211978348	0.001104604
ILMN_3154409	Brd2	0.320513324	10.33221637	6.202827978	0.001112633
ILMN_2428963	Xpnpep1	-0.218318724	8.069886205	-6.192304247	0.00112195
ILMN_1247199	NA	-0.328326788	8.820381597	-6.183614182	0.001129713
ILMN_2662124	Cops5	-0.549907103	9.840972797	-6.181707258	0.001131425
ILMN_1246992	Hmgxb3	0.593919971	11.02503012	6.180977594	0.00113208
ILMN_1255561	Hspa5	-0.543330562	8.812930164	-6.173459328	0.001138863
ILMN_3163419	Shf	0.149742383	8.045804089	6.163029127	0.00114835
ILMN_2746132	Fnbp1l	-0.270442765	10.14758739	-6.146795002	0.0011633

ILMN_2712578	Rbm47	-0.153901416	8.204988588	-6.127095981	0.001181745
ILMN_2710103	Gorasp1	0.509085611	10.12926342	6.126736104	0.001182085
ILMN_2617265	Ipo13	0.255396066	9.182212302	6.122439483	0.001186154
ILMN_2698443	Efnb1	0.272943361	9.503687617	6.113522711	0.001194651
ILMN_2892678	Slc9a6	-0.120304256	7.864372788	-6.088638075	0.00121874
ILMN_3141195	Zfp692	0.354161096	8.495258685	6.066458007	0.001240687
ILMN_1259808	NA	-0.116352777	7.816823572	-6.046254081	0.001261077
ILMN_1247401	Nfatc3	0.417375016	10.45308591	6.043945936	0.001263431
ILMN_3163044	Ola1	-0.258181676	8.023466803	-6.043478238	0.001263909
ILMN_2602633	NA	-0.624812046	12.61917502	-6.03432953	0.001273294
ILMN_1257307	NA	-0.142331021	8.050325466	-6.031854894	0.001275846
ILMN_1234604	Tti1	0.123220698	8.345621405	6.012484354	0.001296032
ILMN_2777337	NA	-0.568384977	11.04262164	-6.011401781	0.001297171
ILMN_2995290	Dync1i2	-0.298561518	11.45827511	-6.003578873	0.001305436
ILMN_2759963	Slc7a9	-0.158723184	7.948069918	-5.996290672	0.001313191
ILMN_1251236	Fbxw8	0.248104866	8.503979213	5.97913474	0.001331658
ILMN_1234521	Ndufs4	-0.928204749	9.670537516	-5.976681148	0.001334324
ILMN_2846865	Actb	1.848231932	10.21958007	5.954798777	0.001358372
ILMN_1241870	NA	0.168319641	8.084846253	5.945223724	0.001369053
ILMN_2600744	Rgs16	0.197558092	8.24570008	5.936096213	0.001379324
ILMN_1244906	Ap1b1	0.334382375	11.68402763	5.930874164	0.001385241
ILMN_2636116	Pdcd5	-0.212482446	8.023412015	-5.923008712	0.001394209
ILMN_1222917	Ptpn1	0.458159018	8.898315982	5.920413064	0.001397183
ILMN_2856144	Mtmt2	-0.199092812	8.15812217	-5.918059909	0.001399886
ILMN_3162224	I7Rn6	-0.516640699	8.896746407	-5.906894701	0.001412792
ILMN_2939652	Selenbp2	0.24631869	8.50630703	5.900182634	0.001420616
ILMN_1249524	Cops5	-0.689308568	9.832291244	-5.891824967	0.00143043
ILMN_1239677	2010107E04Rik	-0.473277587	12.54073886	-5.88189856	0.001442188
ILMN_2663694	Ndufs4	-0.521129371	10.66435867	-5.873519274	0.0014522
ILMN_2669569	NA	-0.129263166	8.479269271	-5.863804992	0.001463908
ILMN_2730651	Slc7a9	0.202990174	13.13432193	5.863380509	0.001464422
ILMN_2481071	Hras1	0.257339196	10.0590097	5.84355685	0.001488665
ILMN_1218584	NA	-0.16801551	8.707638182	-5.842965809	0.001489395

ILMN_2421431	Stx12	0.547916959	9.954214888	5.83367213	0.001500927
ILMN_2496310	U2af2	0.183130769	8.746543987	5.823362585	0.00151384
ILMN_2767596	Sav1	-0.342069876	9.204602576	-5.823072606	0.001514206
ILMN_2657546	Cops3	0.1996645	10.56757918	5.808239264	0.001533017
ILMN_2730784	Gps2	0.455028437	9.406707254	5.782455066	0.001566363
ILMN_1258501	Adh1	-0.103850828	7.962683984	-5.775145844	0.001575968
ILMN_3041584	Cuta	-0.091905048	7.862958886	-5.756921922	0.001600214
ILMN_2595026	Yod1	-0.164470444	8.391054279	-5.755832052	0.001601678
ILMN_1255684	Clcn4-2	-0.136538244	7.982163784	-5.749480247	0.001610239
ILMN_2678063	Afm	0.596557017	9.636702165	5.747078902	0.001613489
ILMN_2593038	Rxrb	0.666277339	10.31816964	5.72650101	0.001641655
ILMN_2777293	Pafah2	-0.118914992	7.859034838	-5.726023099	0.001642316
ILMN_1212949	Ncstn	-0.136001048	7.913051985	-5.726016323	0.001642325
ILMN_2814051	Zfp512	0.296355189	8.873637377	5.704313853	0.001672663
ILMN_2909068	Mrps23	-0.26648184	8.843227977	-5.70302865	0.00167448
ILMN_2650502	NA	0.256429424	8.139490074	5.702543846	0.001675166
ILMN_2851251	Hn1l	-0.243238775	8.151091513	-5.701238136	0.001677015
ILMN_2732718	Ppp1r13b	-0.097679102	7.818502727	-5.692940508	0.001688821
ILMN_3132204	NA	0.543954006	9.667987726	5.692431764	0.001689548
ILMN_2469333	Tnfrsf1a	-0.17866536	8.031765937	-5.680607209	0.001706546
ILMN_2727785	NA	-0.312771929	8.660111942	-5.679492492	0.001708158
ILMN_2723524	Tjp3	-0.151745039	8.706322329	-5.67900363	0.001708866
ILMN_1236703	Ffar3	0.15114288	8.352265355	5.674130881	0.00171594
ILMN_2540645	NA	-0.123952607	7.917666565	-5.672673598	0.001718062
ILMN_1260174	Pde6d	-0.250316325	8.389083141	-5.67133243	0.001720017
ILMN_1243875	Suv420h1	0.305446607	8.255840945	5.661222344	0.001734842
ILMN_2427560	Traf6	0.291043096	8.964756244	5.65213259	0.001748297
ILMN_2861331	Pnrc2	-0.546417687	9.948034314	-5.649135033	0.00175276
ILMN_2861176	Calr	-0.46967698	8.610624324	-5.638355546	0.001768921
ILMN_2617971	Minpp1	-0.123274177	7.894950582	-5.636246706	0.001772102
ILMN_2475832	Utrn	-0.09927361	7.834799271	-5.633279087	0.001776591
ILMN_3029727	Shf	0.391785506	8.459846598	5.630893078	0.001780209
ILMN_1225033	Myg1	-0.209239639	8.166387976	-5.61424855	0.001805688

ILMN_1254840	Smarcb1	-0.142044156	8.453918716	-5.611422353	0.001810056
ILMN_1222346	NA	0.399018651	8.842852119	5.593345562	0.001838285
ILMN_1237767	Hnf4a	0.484947968	12.71468877	5.583939456	0.001853174
ILMN_2833356	4933424B01Rik	-0.139903203	8.904192859	-5.581866173	0.001856475
ILMN_1238326	Nkiras1	0.15557341	9.357735149	5.580689988	0.00185835
ILMN_2739517	Mecr	0.196374575	8.323225397	5.578097394	0.001862492
ILMN_2632832	Adap1	-0.095944808	7.863683769	-5.569833453	0.001875765
ILMN_2499862	NA	0.272937316	8.713091373	5.569430686	0.001876415
ILMN_1213101	Lig1	0.115099767	8.002942071	5.548163891	0.001911093
ILMN_2574633	NA	-0.102339725	7.910380666	-5.546185377	0.001914356
ILMN_2734848	Brd2	0.612978848	11.31291308	5.540630971	0.001923553
ILMN_2700222	Ktn1	-0.097375287	7.871488855	-5.537093395	0.001929437
ILMN_2619594	Il11ra1	0.434577211	10.49217073	5.528195901	0.001944327
ILMN_2565686	NA	0.141233487	8.022045623	5.526932606	0.001946452
ILMN_2975718	Rps6ka1	0.478307004	12.71781943	5.523244746	0.001952671
ILMN_2658208	Setd8	0.517421771	9.678199162	5.496586857	0.001998311
ILMN_1235237	NA	-0.091355176	7.979890417	-5.49016101	0.002009496
ILMN_2680142	Anxa5	-0.442059969	10.14260625	-5.489300511	0.002011
ILMN_2418222	Zbed4	0.315093246	9.78362674	5.479360631	0.002028459
ILMN_2472504	Pcyox1	-0.397367639	10.45250556	-5.466423092	0.002051446
ILMN_1219797	Crls1	-0.194656255	7.977273384	-5.466384315	0.002051515
ILMN_1215633	NA	0.111664325	8.031813564	5.462801699	0.002057934
ILMN_1232596	Pom121	0.519333202	9.204321288	5.462647114	0.002058212
ILMN_2716464	Gorasp2	0.354816527	11.46579999	5.456926407	0.002068511
ILMN_1251370	Ndufa1	-0.811247209	11.2017639	-5.455207705	0.002071617
ILMN_2765450	Ppp2r5d	0.322259134	10.84045222	5.443034006	0.002093771
ILMN_2712018	Bag1	0.270263589	12.01654515	5.434410441	0.00210963
ILMN_2615837	Cstf3	0.167537193	9.236494216	5.430531112	0.002116809
ILMN_1241151	Lrtm1	0.102482467	7.886535089	5.416250282	0.002143482
ILMN_2705131	Muted	0.187754736	9.882393298	5.415127998	0.002145594
ILMN_2428961	Xpnpep1	-0.245717708	7.99925976	-5.408250633	0.002158592
ILMN_3117180	Cpsf6	-0.178536039	8.101771221	-5.404823609	0.002165103
ILMN_2591342	BC021614	0.220590743	9.751783396	5.404149888	0.002166386

ILMN_2470799	NA	-0.21291001	8.191566313	-5.401813263	0.002170841
ILMN_2723513	Fam13b	0.300290031	9.203198214	5.397590083	0.00217892
ILMN_1258357	Dok3	0.220221926	8.363315299	5.395235794	0.002183439
ILMN_2894984	Ppdpf	-0.409735718	9.492257444	-5.381529598	0.002209963
ILMN_2969435	Slc4a1ap	-0.201890239	8.821549993	-5.380876162	0.002211237
ILMN_2749178	St3gal1	-0.220163746	8.066904065	-5.377912945	0.002217024
ILMN_2920736	Bbc3	0.64236068	9.262749808	5.376310074	0.002220162
ILMN_2425351	Usp1	-0.096488937	7.874955383	-5.367845402	0.002236816
ILMN_3159149	Rusc2	0.460303124	10.45830541	5.364772943	0.002242897
ILMN_2725035	Ebpl	-0.236059661	8.126435212	-5.360623543	0.002251139
ILMN_1222872	Wbscr16	0.177969333	8.326556833	5.356409931	0.002259545
ILMN_2720770	Dcps	-0.19651825	8.300502704	-5.354449129	0.002263469
ILMN_2896314	Axin2	0.290668237	9.696139075	5.348046308	0.002276337
ILMN_2781458	Tlcd1	0.357301203	8.515710044	5.341903912	0.002288761
ILMN_2730729	2310003C23Rik	-0.222065864	7.995904337	-5.341466528	0.002289649
ILMN_1240550	Psmb7	-0.816626073	10.17321008	-5.338016395	0.002296665
ILMN_2950721	2810008M24Rik	-0.372561656	8.469826266	-5.331969411	0.002309021
ILMN_2823011	Myo10	-0.099069529	7.941187079	-5.329355242	0.002314387
ILMN_1237950	Brd7	-0.25561248	8.266920233	-5.316533261	0.002340913
ILMN_2591219	Arhgef26	0.329170194	9.759956591	5.314366895	0.002345429
ILMN_2683095	Ap1g2	0.142498713	8.59318461	5.310154366	0.00235424
ILMN_2438555	0610011F06Rik	-0.26319538	8.243370934	-5.303445077	0.002368351
ILMN_1241838	Cacna1g	0.104847769	8.105977899	5.300325406	0.002374946
ILMN_2775098	Cyb5	-0.55701755	11.42591885	-5.289367469	0.002398279
ILMN_1220100	Ywhae	0.193462129	8.930518115	5.284658808	0.002408386
ILMN_1255960	Spc25	-0.148440356	7.963959424	-5.283269927	0.002411377
ILMN_2659617	Epn2	0.180625506	8.73944728	5.282893746	0.002412187
ILMN_1259749	NA	0.572066551	9.400548849	5.274758377	0.002429798
ILMN_2684575	Pcyox1l	0.162226754	8.150125579	5.26777788	0.002445027
ILMN_2757489	Ppp1r11	-0.404289065	9.963508946	-5.265644296	0.002449703
ILMN_1231586	Sertad2	0.355863839	9.361719787	5.254873828	0.002473469
ILMN_2839745	A230050P20Rik	0.453357081	9.10741476	5.243455638	0.002498954
ILMN_1242559	NA	0.456874048	10.62641455	5.239780386	0.002507221

ILMN_2964420	Lipk	-0.08718898	7.840965346	-5.235912631	0.002515956
ILMN_1256412	Sh2b1	0.148421327	9.744045766	5.232328774	0.00252408
ILMN_1214800	Rnf167	-0.186207715	8.459423734	-5.229491083	0.002530535
ILMN_2771944	Psm4	-0.552700855	11.24290157	-5.228346862	0.002533142
ILMN_2608574	Tm2d3	-0.171182038	8.089003699	-5.225284208	0.002540138
ILMN_2939303	Pcyt2	0.414227681	10.65088089	5.223266349	0.00254476
ILMN_2912471	Slc48a1	0.354692103	9.141576862	5.22033782	0.002551484
ILMN_2612091	Med25	-0.094644608	7.869943039	-5.218511191	0.002555688
ILMN_1218913	Igf2bp3	0.49342598	11.47822916	5.217431428	0.002558178
ILMN_1219656	Tmem160	0.330807178	10.06926	5.212187271	0.002570307
ILMN_2955214	Rbfa	0.366925992	10.06619393	5.210168077	0.002574994
ILMN_2997923	Apoa1bp	-0.542186517	9.749343114	-5.201094146	0.002596182
ILMN_2933914	Psm14	-0.41500792	8.999600415	-5.193313941	0.002614509
ILMN_1242837	Gtf2ird2	0.254147815	8.699621717	5.192041693	0.00261752
ILMN_1257102	Cecr5	0.290034784	8.711630494	5.188423692	0.002626105
ILMN_2574997	NA	0.091979144	7.93314148	5.179608048	0.002647158
ILMN_2751072	Gna11	-0.299195841	10.4995878	-5.179234395	0.002648055
ILMN_2684667	1810035L17Rik	-0.707069309	9.666960365	-5.17884235	0.002648996
ILMN_2757197	Thoc3	0.099559838	8.245421744	5.178694991	0.00264935
ILMN_1234922	NA	0.146369108	8.132879739	5.168640136	0.002673623
ILMN_2757368	Creld2	-0.308891254	9.163577753	-5.166542263	0.00267872
ILMN_2924839	Oas1a	0.116093192	7.948413732	5.151485307	0.00271563
ILMN_1239724	Psm1	-0.36287473	11.0611728	-5.146300836	0.002728474
ILMN_2762514	Mier2	0.26379334	9.671391364	5.139553818	0.002745294
ILMN_2653881	NA	0.496233458	10.24650351	5.127816915	0.002774839
ILMN_2942669	Atp13a1	0.625563228	11.33576547	5.123272329	0.002786377
ILMN_1233860	Fam187b	0.143458088	8.064258512	5.122777839	0.002787636
ILMN_2631994	Hexim1	0.227209734	9.096721215	5.107749551	0.002826206
ILMN_3107377	Dnajb6	-0.19974834	8.171947062	-5.107144369	0.002827772
ILMN_2543630	NA	0.921743551	11.68610937	5.105370861	0.002832366
ILMN_1219568	Pmm2	-0.305855143	8.490226028	-5.104732779	0.002834022
ILMN_1244409	Cmtm4	0.374053676	10.42095199	5.094174233	0.002861575
ILMN_2508639	Zfp451	0.147781591	8.716776449	5.087758147	0.002878468

ILMN_1229517	Ftl1	0.289567925	14.88915206	5.087440898	0.002879306
ILMN_2638721	Csrnp2	0.365848736	8.811391993	5.083436116	0.002889912
ILMN_2593852	Obfc2b	-0.218342874	8.270867456	-5.080043493	0.002898933
ILMN_2435996	NA	0.272314047	8.119631481	5.079268515	0.002900998
ILMN_1251143	NA	-0.431017221	9.825254628	-5.078583644	0.002902824
ILMN_3115185	Sumf2	0.236666764	8.674446425	5.077775582	0.00290498
ILMN_1244995	NA	0.136124805	8.172333484	5.074944294	0.002912551
ILMN_1231135	NA	0.193384185	8.03871431	5.06751363	0.002932528
ILMN_1220632	Psmc5	-0.440193304	8.914251671	-5.046525157	0.002989811
ILMN_2900025	Ndufs4	-0.758487704	9.997038214	-5.045886224	0.002991575
ILMN_3123303	Pxn	-0.234059369	8.99053241	-5.044476244	0.002995471
ILMN_2608043	Hes6	-0.15665876	8.003109115	-5.043118782	0.002999228
ILMN_2691460	Ndufa5	-0.230643587	8.950277866	-5.034476264	0.003023276
ILMN_1222356	1110067D22Rik	-0.130995269	8.346190494	-5.032408906	0.003029061
ILMN_2467185	NA	0.306454786	8.633446076	5.029169822	0.003038151
ILMN_2665552	Mrpl22	-0.504862209	8.818711945	-5.024372141	0.003051672
ILMN_2619455	Mcat	0.16107909	9.054060911	5.021404679	0.003060069
ILMN_2849016	Slc47a1	0.466679786	8.505629122	5.019708509	0.003064881
ILMN_2630328	Psmc7	-0.684543327	9.188355029	-5.019473671	0.003065548
ILMN_2491654	Ubp2	0.427787919	10.90882826	5.018441539	0.003068481
ILMN_2470211	Upf2	0.305150115	10.95802627	5.014033354	0.003081045
ILMN_2435140	Uqcrc2	-0.559396103	11.46441107	-5.012094371	0.00308659
ILMN_2957898	Ufsp2	-0.180788157	8.314029134	-5.011405015	0.003088564
ILMN_2944301	Ece2	-0.16550505	8.048675524	-5.007371392	0.003100144
ILMN_2887131	Usp3	-0.166303636	8.767089071	-5.005872979	0.003104458
ILMN_2484278	NA	0.665466766	9.500255282	5.005447626	0.003105684
ILMN_1238542	2810405K02Rik	-0.494166306	9.341819737	-5.00406353	0.003109678
ILMN_2967445	Itga1	-0.112557089	7.87983917	-4.995520172	0.003134457
ILMN_1237324	NA	0.156654219	8.036830893	4.990647119	0.003148693
ILMN_2839973	Kat5	-0.193062801	8.265138798	-4.989883447	0.003150931
ILMN_2591217	Rars	-0.508871556	8.807946149	-4.978449407	0.003184653
ILMN_2772686	NA	-0.299957331	8.657296507	-4.96663843	0.003219923
ILMN_2628647	Ddc	-0.168321561	8.141176449	-4.960710929	0.003237793

ILMN_2998135	Atg5	-0.164228413	10.39704582	-4.955813742	0.003252642
ILMN_2430374	Uba1	-0.472592792	10.14235262	-4.951894275	0.003264583
ILMN_2655555	Taf9	-0.233261473	8.170970504	-4.949021803	0.003273367
ILMN_1213681	0610009O20Rik	0.177476132	8.367975365	4.947983565	0.003276548
ILMN_1237892	Lrba	0.189385798	8.132441051	4.947515373	0.003277984
ILMN_1252675	NA	0.294456234	8.25721154	4.944220128	0.00328811
ILMN_2687799	Fam50a	-0.227277669	8.505952695	-4.943809723	0.003289374
ILMN_1229200	NA	0.293908597	8.576599799	4.941035964	0.003297929
ILMN_2481799	Zfp317	0.153381684	8.225525242	4.93853644	0.00330566
ILMN_1231930	Tesk1	0.338311356	9.93443048	4.933967398	0.003319846
ILMN_2420095	Yaf2	0.113747934	8.253020302	4.932365962	0.003324835
ILMN_1234315	NA	-0.511083641	9.56175756	-4.928538976	0.003336791
ILMN_2513041	Usf2	-0.125558695	7.934877222	-4.927628057	0.003339644
ILMN_2757268	Tbc1d7	-0.177127421	8.054195198	-4.927131595	0.003341201
ILMN_1241962	Cox5b	-0.605978343	12.41908824	-4.911488918	0.003390664
ILMN_2695539	Mast3	0.747268539	9.949886746	4.910908386	0.003392515
ILMN_2726397	Kcnh3	0.075037233	7.843580379	4.909780923	0.003396115
ILMN_1257408	Mrpl4	-0.333888933	8.564206021	-4.906279846	0.003407321
ILMN_2793739	Lipo1	-0.284945743	8.452212242	-4.90536704	0.00341025
ILMN_1223728	NA	-0.075924301	7.816070763	-4.902111265	0.003420719
ILMN_2748875	Fcer1g	-0.5121059	8.38473351	-4.900152701	0.003427035
ILMN_2619877	Ap1m2	-0.543594908	9.134437602	-4.899224833	0.003430032
ILMN_1217753	Srpk1	0.25179515	10.08059261	4.894797624	0.003444372
ILMN_2657694	Ndufa9	-0.686135795	10.39724328	-4.894098734	0.003446642
ILMN_2686270	Slain2	-0.182007918	9.337503891	-4.888889164	0.003463617
ILMN_2692696	Pla2g7	0.613061484	9.046836132	4.888841395	0.003463773
ILMN_1227508	Stard5	0.684826992	10.57682201	4.888254479	0.003465692
ILMN_1245471	Ap1ar	-0.151229606	12.00382293	-4.887571627	0.003467925
ILMN_2694038	Pcyt2	0.201412556	9.750061296	4.884728426	0.003477244
ILMN_2536184	NA	-0.160880246	8.190459219	-4.882843592	0.003483437
ILMN_2522765	Ints12	-0.273286609	8.598585622	-4.881617305	0.003487473
ILMN_1212605	NA	-0.263476785	8.675904104	-4.879199511	0.003495446
ILMN_2853957	Dag1	0.587207625	9.797177525	4.876831643	0.003503275

ILMN_2885532	Cpt2	-0.506574149	10.07352675	-4.871901803	0.00351964
ILMN_1227001	Ptbp1	0.554227301	10.97200045	4.871573532	0.003520733
ILMN_2789544	Abcf2	-0.249941606	9.659541931	-4.870530191	0.003524209
ILMN_2745259	Emd	-0.132839037	7.935492467	-4.867786363	0.003533368
ILMN_2676056	Aqr	-0.164080925	8.021483412	-4.864723223	0.003543626
ILMN_1230244	Klhl15	-0.093531619	7.916177702	-4.859676689	0.003560601
ILMN_2774701	Ube2z	0.234553958	8.663741305	4.855728336	0.003573947
ILMN_2519676	Triobp	0.399795207	12.2745447	4.854537237	0.003577984
ILMN_2878501	Nedd4l	0.24065612	10.18493521	4.850576672	0.003591446
ILMN_2911788	Tmprss13	0.091768844	7.863684615	4.847880103	0.003600646
ILMN_2602858	Prickle3	0.314605336	10.90409898	4.847323461	0.003602548
ILMN_1230668	Rsc1a1	-0.130545552	8.152987382	-4.846272098	0.003606144
ILMN_1247889	Atp5o	-0.615716468	12.44779915	-4.840916656	0.003624526
ILMN_2512541	Ube2n	-0.215717526	8.200534393	-4.834569587	0.003646451
ILMN_2445548	NA	0.257494173	9.924115767	4.833480131	0.00365023
ILMN_1224080	NA	-0.155941736	8.055033619	-4.830334291	0.003661166
ILMN_2755258	Dscr3	-0.090689036	7.892866354	-4.823382996	0.003685465
ILMN_1257368	NA	-0.695965023	9.323053602	-4.822097534	0.003689978
ILMN_1217804	Ptpn5	0.0850873	7.859405543	4.816975136	0.003708028
ILMN_1217520	Dnhd1	0.115130226	7.919630857	4.815054706	0.003714821
ILMN_2681622	Nit2	-0.174207718	8.176181023	-4.812274623	0.00372468
ILMN_2588671	Add3	-0.113914831	8.483383379	-4.811867218	0.003726127
ILMN_2865822	Napa	0.32101788	9.620838609	4.806939768	0.003743683
ILMN_2635167	NA	0.282738637	11.09115529	4.805402842	0.003749178
ILMN_2798183	Commd4	-0.435846779	10.19350854	-4.802704907	0.003758847
ILMN_2617820	Ppp3cc	0.105980956	8.201375544	4.801784844	0.003762151
ILMN_2711705	Dusp11	0.600826705	10.45355838	4.798175917	0.003775142
ILMN_1218422	NA	0.193415496	8.069940789	4.794841414	0.003787191
ILMN_2959292	Upp1	-0.107978083	7.891441661	-4.792311613	0.003796362
ILMN_1237821	NA	0.181187129	10.91062389	4.787655174	0.003813309
ILMN_2679037	NA	-0.369127083	8.992293693	-4.786887382	0.003816112
ILMN_2760963	Dock6	0.582558593	10.72827552	4.785545843	0.003821015
ILMN_1220096	Brf1	0.435862691	9.027571968	4.78235801	0.003832694

ILMN_1259299	3110056O03Rik	0.347474783	10.09158861	4.781850173	0.003834558
ILMN_2723920	Itpk1	0.731900284	12.38750275	4.773980336	0.003863582
ILMN_3136809	Git2	0.1553114	8.431563046	4.770355758	0.003877034
ILMN_2935389	Snrnp35	-0.073025609	7.822678577	-4.767948497	0.003885997
ILMN_1240605	NA	0.117997968	7.949320901	4.766394205	0.003891798
ILMN_2642158	Atp5s	-0.108752395	8.716985879	-4.764577802	0.003898588
ILMN_3153893	Zfp91	-0.12314946	8.226641678	-4.760461937	0.003914027
ILMN_2928875	Atp6v1g1	-0.5171215	8.702132651	-4.75926421	0.003918532
ILMN_1254855	Mknk1	0.208726468	8.756704541	4.757354844	0.003925727
ILMN_1250688	Fat1	-0.559219263	11.18901623	-4.756736288	0.003928062
ILMN_2942276	Luzp1	0.26090613	10.51853223	4.754185604	0.003937704
ILMN_2664511	Osgep	-0.31050165	9.537472614	-4.754173767	0.003937748
ILMN_2451578	Trmu	0.082989758	8.219267227	4.750909221	0.003950129
ILMN_1246694	Dus1l	0.30488387	9.574332667	4.74513957	0.003972118
ILMN_2652890	Pkp3	0.48992589	9.811858595	4.743224391	0.003979449
ILMN_2426853	Ubd	-0.116886126	7.864434944	-4.739879471	0.003992288
ILMN_2825562	Cybrd1	0.081183376	7.85950551	4.73558563	0.00400884
ILMN_2899599	Ddx3y	1.692582259	10.55120438	4.735040674	0.004010946
ILMN_1249301	Bckdk	-0.158747161	9.150479574	-4.73380231	0.004015737
ILMN_2746776	Ubp1	0.154825757	8.034999707	4.73348566	0.004016963
ILMN_2497293	NA	0.363334141	8.931772035	4.73332954	0.004017568
ILMN_2630438	Psm7	0.441567421	11.03100129	4.732658199	0.00402017
ILMN_2857581	Rars2	-0.184660677	8.38646861	-4.728602726	0.004035926
ILMN_2499944	Tomm7	-0.597973378	10.21133496	-4.72711224	0.004041734
ILMN_2629297	Nlrp3	-0.077000205	7.819737595	-4.722710447	0.004058944
ILMN_2727722	Pla2g4f	0.554908849	8.587611615	4.718968746	0.004073639
ILMN_2965641	2410002F23Rik	0.26213301	8.791184199	4.718829778	0.004074186
ILMN_1222584	Srsf11	-0.267829666	8.232601074	-4.713225575	0.004096313
ILMN_2838317	Pqlc3	-0.325425579	8.511119785	-4.710195711	0.004108334
ILMN_2473755	Vps18	0.471027594	11.07234361	4.709763848	0.00411005
ILMN_2612477	Rbm14	0.440683753	9.047252166	4.709304129	0.004111879
ILMN_3072536	Eif5	-0.599257842	10.14070968	-4.70724435	0.004120081
ILMN_1220311	NA	0.127009458	8.142317357	4.706348662	0.004123654

ILMN_1236577	NA	-0.175327532	8.585295851	-4.705402001	0.004127434
ILMN_2747897	Ndufs3	-0.543861232	9.733379779	-4.702893728	0.004137469
ILMN_2700292	H13	-0.338682216	8.604512	-4.700787931	0.004145915
ILMN_1230145	Acvr2b	0.783850827	9.81115775	4.695980632	0.004165271
ILMN_2612143	Sin3a	0.260617353	9.455867239	4.695529851	0.004167091
ILMN_2620336	Ralb	0.421252967	11.23264863	4.694515805	0.004171189
ILMN_2827311	Gtf3a	-0.334140074	8.998173385	-4.693021854	0.004177235
ILMN_2977903	Zc3h4	0.473510827	9.072428881	4.692582283	0.004179016
ILMN_2591381	Ppm1b	0.133893358	11.5266769	4.691842633	0.004182015
ILMN_1229957	Il11ra1	0.517303932	11.41167336	4.686923282	0.00420202
ILMN_3158698	BC046404	0.380145624	11.72168451	4.684306801	0.004212705
ILMN_2752497	Nsmce2	-0.207007509	8.417462669	-4.683624081	0.004215499
ILMN_2896492	Jmjd8	0.574294914	9.702760627	4.680803464	0.004227061
ILMN_2792868	Blvrb	-0.230363731	10.46593731	-4.679962967	0.004230513
ILMN_1238640	2310003H01Rik	0.230139323	8.976014951	4.679482021	0.00423249
ILMN_2859518	Krtcap3	0.385327863	11.2994665	4.678161075	0.004237926
ILMN_2431007	NA	0.18214399	8.593504845	4.675947655	0.004247051
ILMN_2760043	Prpf40a	-0.25246387	8.295950236	-4.671010999	0.004267486
ILMN_1236131	Mrpl48	-0.355752634	8.92302407	-4.669390761	0.004274217
ILMN_2597481	Rala	-0.201914796	8.20588435	-4.667948473	0.004280219
ILMN_2663996	Rnf186	0.547778795	10.24960265	4.665643681	0.00428983
ILMN_2836023	Stra13	0.190401787	8.329561958	4.664018967	0.00429662
ILMN_2976188	Stat5a	0.102696948	8.032935794	4.663116663	0.004300397
ILMN_1217589	NA	-0.086015808	7.821772304	-4.659205723	0.004316809
ILMN_1217000	Tfpt	-0.141198805	8.023630718	-4.657235163	0.004325105
ILMN_1229177	Klk1b26	-0.402322989	8.224271976	-4.656713154	0.004327306
ILMN_2650775	Nol12	-0.098476616	8.08043055	-4.656497928	0.004328214
ILMN_2777175	Stk40	0.468069643	10.29506843	4.653879515	0.004339275
ILMN_2597899	Zfc3h1	0.324705085	10.60364196	4.646829286	0.00436922
ILMN_1240274	Prcc2b	0.348983949	10.35726293	4.64541976	0.004375235
ILMN_2615134	NA	0.246504253	8.536196547	4.644683274	0.004378382
ILMN_2944508	Bglap2	0.602799772	9.072971263	4.64302101	0.004385493
ILMN_3121784	Fam53b	0.124215483	8.287658486	4.642155996	0.004389199

ILMN_2764737	Psmc2	-0.178729058	8.183982474	-4.640069177	0.004398155
ILMN_2702061	Tubb2c	-0.474531369	11.81702178	-4.638608244	0.004404437
ILMN_2920549	Map2k4	-0.194518664	9.557144854	-4.638102618	0.004406613
ILMN_1249670	Pdia4	-0.483584569	9.081028664	-4.638024123	0.004406951
ILMN_2721613	Pde8b	-0.114952145	7.883120877	-4.631116333	0.004436813
ILMN_2596324	D6Wsu163e	-0.143402457	8.529073332	-4.625634396	0.004460676
ILMN_2596880	Brap	0.164668232	8.13169551	4.620587899	0.004482773
ILMN_2682787	Cops7a	-0.209467541	8.20024417	-4.620183444	0.004484549
ILMN_1220115	NA	0.240396632	10.03029852	4.608852528	0.004534644
ILMN_1219084	NA	-0.150846647	8.080381297	-4.607614757	0.004540155
ILMN_2590015	Ppdpf	-0.263596578	8.49080589	-4.607249304	0.004541784
ILMN_2630344	Ercc2	0.081715913	8.093322795	4.606217006	0.004546387
ILMN_3009579	Enox2	-0.285423858	8.490087285	-4.59886296	0.00457934
ILMN_2655163	Dock8	0.170722573	8.095735688	4.59403779	0.00460111
ILMN_2660898	Aggf1	-0.094626617	7.96183699	-4.589367691	0.004622292
ILMN_1222754	NA	0.195093691	8.065452901	4.587111264	0.004632567
ILMN_1213074	Ceacam1	-0.116447336	7.980473734	-4.586132809	0.00463703
ILMN_2777535	NA	-0.444419927	8.459454605	-4.585144842	0.004641542
ILMN_2710678	Nfic	0.432456419	8.702363677	4.584876101	0.00464277
ILMN_2757986	Sgsh	0.466229196	10.08965451	4.584232261	0.004645714
ILMN_1246740	Slc35b2	0.140835964	10.75745581	4.577700534	0.004675701
ILMN_2749484	Rfc2	-0.203868768	9.155519047	-4.567242887	0.004724173
ILMN_1253733	NA	-0.090870612	7.832642172	-4.56682729	0.004726111
ILMN_2753057	Dtd1	-0.229061583	8.18073295	-4.566615586	0.004727099
ILMN_1233127	Rfwd2	0.184085804	8.45769873	4.566085959	0.004729571
ILMN_1245979	NA	-0.304880403	8.353637026	-4.565843646	0.004730702
ILMN_2605004	Ndufb9	-0.458055493	9.761699106	-4.56349096	0.004741703
ILMN_1232875	Sgk3	-0.127548961	7.92202964	-4.559342053	0.004761175
ILMN_1219543	Lingo4	0.085053664	8.027958291	4.55548275	0.00477937
ILMN_1226151	Gpsm1	0.193732572	8.344829423	4.552298242	0.004794443
ILMN_2488846	Tmod4	0.114102322	8.007014439	4.551902686	0.004796319
ILMN_1225995	Morc2a	0.251686804	9.626854228	4.546031387	0.004824265
ILMN_2713039	Ttc33	-0.129812116	7.938067048	-4.540755542	0.004849535

ILMN_2771380	Cd52	-0.179394452	8.00090098	-4.538479853	0.004860482
ILMN_1226525	H2-Ab1	-0.724268351	9.639458872	-4.532467962	0.004889537
ILMN_1228976	Tardbp	-0.072155139	7.86426419	-4.530289451	0.004900114
ILMN_3127595	Lman1l	0.07064878	7.857690835	4.52950692	0.00490392
ILMN_2755008	Nfkbiz	0.279928357	9.724395417	4.529078234	0.004906007
ILMN_2724235	Myo18a	0.310426683	9.692696856	4.526636682	0.004917909
ILMN_3162388	Bbs5	-0.070913435	8.229672731	-4.526128983	0.004920388
ILMN_2605575	Alg14	-0.365183246	8.630065492	-4.522534345	0.004937981
ILMN_2623451	Ift172	-0.156365029	8.192119405	-4.519761595	0.004951601
ILMN_1238654	Gorasp2	-0.087760697	7.884547232	-4.519358505	0.004953585
ILMN_2909782	Rras2	0.326832092	9.530042272	4.516726558	0.004966559
ILMN_2728813	Aadac	-0.412183125	8.293386558	-4.513536312	0.004982337

Supplementary Table 1. Probes with differential expression between CKO and control mice sorted by P value in T test between normalized expression values (N= 3 in each group). This gene list was further interrogated by pathway analysis to assist in hypothesis generation for potential mechanisms underlying the difference in observed NEC between CKO and controls.

Ingenuity Canonical Pathways	-log(p-value)	Ratio	Molecules
Protein Ubiquitination Pathway	7.71E+00	8.58E-02	PSMB3,PSMD7,PSMA7,DNAJC2,USP1,HSPA5,PSMB6,PSMC5,USP3,UBD,TRAF6,PSMB7,BAG1,PSMB1,PSMA4,PSMD1,PSMD14,UBA1,DNAJB6,PSMC2,NEDD4L,DNAJC7,UBE2E1
Agrin Interactions at Neuromuscular Junction	3.84E+00	1.16E-01	MAP2K4,PXN,RRAS2,ACTB,UTRN,HRAS,ITGA1,DAG1
Mitochondrial Dysfunction	3.48E+00	6.21E-02	MAP2K4,NDUFA5,NDUFB9,NDUFA9,UQCRC2,NDUFS2,NCSTN,CYB5A,NDUFS3,COX5B (includes EG:100002384),NDUFS4
Assembly of RNA Polymerase III Complex	2.55E+00	1.88E-01	GTF3C2,GTF3A,BRF1 (includes EG:2972)
Germ Cell-Sertoli Cell Junction Signaling	2.55E+00	6.10E-02	MAP2K4,EPN2,PXN,AGGF1,RRAS2,TUBB4B,TNFRSF1A,ACTB,HRAS,MTMR2
Glucocorticoid Receptor Signaling	2.17E+00	4.42E-02	MAP2K4,TAF9,STAT5A,NFATC3,BGLAP,HRAS,PPP3CC,ERCC2,TAF13 (includes EG:310784),HSPA5,TRAF6,RRAS2,BAG1
Sertoli Cell-Sertoli Cell Junction Signaling	2.16E+00	5.13E-02	MAP2K4,EPN2,AGGF1,RRAS2,TUBB4B,TJP3,TNFRSF1A,ACTB,HRAS,MTMR2
Paxillin Signaling	2.11E+00	6.31E-02	MAP2K4,PXN,RRAS2,ACTB,HRAS,ITGA1,GIT2
TGF- β Signaling	1.94E+00	6.74E-02	MAP2K4,TRAF6,RRAS2,HRAS,ACVR2B,HNF4A
Thyroid Cancer Signaling	1.90E+00	9.52E-02	RRAS2,KLK3,HRAS,RXR β
VEGF Signaling	1.85E+00	6.06E-02	EIF2S3,PXN,RRAS2,YWHAE,ACTB,HRAS
14-3-3-mediated Signaling	1.84E+00	5.98E-02	MAP2K4,RRAS2,YWHAE,TUBB4B,TNFRSF1A,HRAS,RPS6KA1
D-myo-inositol (1,4,5,6)-Tetrakisphosphate Biosynthesis	1.83E+00	8.57E-02	ITPK1,ACP1 (includes EG:11431),PTPN1
D-myo-inositol (3,4,5,6)-tetrakisphosphate Biosynthesis	1.83E+00	8.57E-02	ITPK1,ACP1 (includes EG:11431),PTPN1
Apoptosis Signaling	1.83E+00	6.32E-02	MAP2K4,RRAS2,TNFRSF1A,HRAS,RPS6KA1,NAIP
PKC Signaling in T Lymphocytes	1.78E+00	4.90E-02	MAP2K4,RRAS2,NFATC3,FCER1G,HRAS,PPP3CC,HLA-DQB1
Role of MAPK Signaling in	1.77E+00	7.25E-02	MAP2K4,RRAS2,HRAS,PLA2G4F,PLA2G7

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Neurotrophin/TRK Signaling	1.75E+00	6.67E-02	MAP2K4,RRAS2,KLK3,HRAS,RPS6KA1
TNFR1 Signaling	1.67E+00	7.69E-02	MAP2K4,TANK,TNFRSF1A,NAIP
TNFR2 Signaling	1.60E+00	9.09E-02	MAP2K4,TANK,NAIP
Ephrin B Signaling	1.60E+00	6.25E-02	PXN,EFNB1,ACP1 (includes EG:11431),GNA11,HRAS
Cleavage and Polyadenylation of Pre-mRNA	1.54E+00	1.67E-01	CPSF6,CSTF3
Regulation of IL-2 Expression in Activated and Anergic T Lymphocytes	1.47E+00	5.62E-02	MAP2K4,RRAS2,NFATC3,HRAS,PPP3CC
Oleate Biosynthesis II (Animals)	1.47E+00	1.05E-01	UFSP2,CYB5A
Nur77 Signaling in T Lymphocytes	1.44E+00	6.35E-02	FCER1G,PPP3CC,HLA-DQB1,SIN3A
Oncostatin M Signaling	1.38E+00	8.57E-02	STAT5A,RRAS2,HRAS
Role of JAK2 in Hormone-like Cytokine Signaling	1.38E+00	8.33E-02	SH2B1,STAT5A,PTPN1
Myc Mediated Apoptosis Signaling	1.37E+00	6.67E-02	MAP2K4,RRAS2,YWHAE,HRAS
Death Receptor Signaling	1.37E+00	6.25E-02	MAP2K4,TANK,TNFRSF1A,NAIP
Induction of Apoptosis by HIV1	1.35E+00	6.15E-02	MAP2K4,BBC3,TNFRSF1A,NAIP
Spliceosomal Cycle	1.35E+00	1.11E-01	U2AF2
FAK Signaling	1.34E+00	4.95E-02	PXN,RRAS2,ACTB,HRAS,GIT2

Supplementary table 2. Results of Ingenuity Pathway analysis that reveals over-expression of genes determining differential expression between CKO and controls from a number of pathways. Pathways with P value < 0.05 are presented in this table. These include apoptosis signaling and pathways for signaling in T cell lymphocytes.