

Supplementary table 2. Differentially expressed genes between each time point with corresponding kegg number (KO#), log fold change (logFC), log count per million (logCPM), F value (F), P value (PValue), false discovery rate adjusted P value (FDR), Predicted protein (function) and the koala reference genome location number (LOC#)

Admission (week 0) to End of Antibiotics (Week 4)								End of Antibiotics (Week 4) to Release (Week 8)									
genes	KO#	logFC	logCPM	F	PValue	FDR	function	LOC#	genes	KO#	logFC	logCPM	F	PValue	FDR	function	LOC#
LOXL4	K00280	6.560337	4.344205	7.906544	0.004927	0.437841			AOX1	K00157	-10.5916	3.210946	7.680883	0.005582	0.419336		
FMO6P	K00485	9.559361	2.506135	7.601086	0.005835	0.469427	putative di	LOC110196	LOXL4	K00280	-12.0633	4.344205	12.91232	0.000327	0.169623		
CHST11	K01017	8.904431	4.109732	10.82447	0.001002	0.271327			GALNT9	K00710	-10.5919	3.038824	7.36872	0.006638	0.442037		
RNASE6	K01172	-11.474	4.791521	7.926453	0.004873	0.437504	ribonuclea:	LOC110206	DGKB	K00901	-11.4127	3.746671	9.747462	0.001796	0.313216		
PGLYRP2	K01446	-6.17224	8.165478	9.8775	0.001674	0.350116			LPL	K01059	-10.8502	3.517634	8.567023	0.003424	0.385571		
FPR2	K04173	-11.8428	5.107725	9.11842	0.002531	0.37908	formyl pep	LOC110215	INPP5J	K01106	-10.442	3.22727	7.572204	0.005929	0.419336		
CCKBR	K04195	10.9645	3.385968	10.75991	0.001038	0.271327			C2	K01332	-10.2738	4.199803	9.711218	0.001832	0.313216		
ADORA2B	K04267	-11.7749	5.132563	9.099536	0.002558	0.37908			PGLYRP2	K01446	5.415421	8.165478	8.021899	0.004623	0.406923		
MAPT	K04380	8.217309	4.004936	9.333425	0.002251	0.37908			AZIN2	K01583	-7.68087	5.082959	9.456211	0.002105	0.327986	antizyme ir	LOC110206237
CAMK2B	K04515	5.759141	4.799363	7.678084	0.005591	0.467981			A4GALT	K01988	-6.95796	4.663959	6.644289	0.009949	0.488371		
IL1B	K04519	-6.70047	9.867449	12.23797	0.000469	0.213505			IL4I1	K03334	-5.4257	5.55691	6.978822	0.00825	0.465433		
ADGRE1	K04591	-5.69382	8.742069	9.267824	0.002333	0.37908			SKP2	K03875	-10.5159	2.896064	7.069128	0.007844	0.451199		
ADGRB3	K04598	8.960652	4.518575	13.01208	0.00031	0.168425			A2M	K03910	-10.2038	2.767364	6.692241	0.009685	0.482388		
AMH	K04665	9.344645	3.319405	8.655523	0.003262	0.385212			OPRL1	K04216	-11.0601	3.557328	8.873571	0.002894	0.371241		
SOCS3	K04696	-5.04184	9.672381	8.218499	0.004148	0.409656			PTGER2	K04259	-10.4415	3.446012	8.00102	0.004676	0.406923		
IRAK2	K04731	-5.45693	8.376339	8.569838	0.003419	0.385212			gpr35	K04276	-5.28902	5.517227	6.622234	0.010073	0.489235	G-protein c	LOC110198099
CHST12	K04742	5.554003	5.126201	7.978463	0.004735	0.437504			RASGRF1	K04349	-11.0806	3.488664	8.735097	0.003122	0.378659		
TRPV5	K04974	10.04719	2.644449	8.258624	0.004057	0.407767			ADGRB3	K04598	-12.2596	4.518575	14.05638	0.000178	0.120696		
KCNJ12	K05005	7.980121	3.95335	8.815561	0.002988	0.383229	ATP-sensiti	LOC110223	THBS2	K04659	-11.3636	3.747881	9.697218	0.001846	0.313216		
CXCR2	K05050	-5.89779	7.197474	8.467994	0.003615	0.390156			AMH	K04665	-11.0636	3.319405	8.340876	0.003877	0.399392		
CSF3R	K05061	-6.78302	11.15352	13.23992	0.000274	0.162111			SOCS3	K04696	5.042751	9.672381	8.021253	0.004624	0.406923		
GRIN2B	K05210	8.787381	4.733966	13.44169	0.000246	0.158879			CHRNA2	K04804	-6.99967	5.954603	9.960955	0.0016	0.31032		
NRG3	K05457	10.27636	2.711327	8.578579	0.003402	0.385212			CACNA1C	K04850	-5.11671	5.612054	6.59043	0.010255	0.489235		
IL1RN	K05481	-5.91344	10.18357	10.54362	0.001166	0.299228			CACNA1I	K04856	-9.11419	3.96535	7.747774	0.005379	0.419336		
TGM1	K05619	-5.40294	8.067633	8.212708	0.004161	0.409656			KCNK13	K04922	-11.3965	3.744749	9.723571	0.00182	0.313216		
VIL1	K05761	7.710396	3.950035	8.409853	0.003733	0.393462			KCNN1	K04942	-10.6468	3.410949	8.131028	0.004352	0.406923		
PLCD4	K05857	5.718047	4.891227	7.825351	0.005153	0.44628			KCNJ12	K05005	-11.692	3.95335	10.77001	0.001032	0.268071	ATP-sensiti	LOC110223210
SPTBN5	K06115	5.474314	5.494331	8.950701	0.002774	0.381054			CLIC4	K05024	6.745639	6.400656	8.346434	0.003865	0.399392		
CD33	K06473	-5.64459	8.009557	8.651667	0.003269	0.385212	myeloid ce	LOC110220	ABCC8	K05032	-10.4736	3.032401	7.253436	0.007078	0.442037		
SPN	K06477	-5.62813	8.711057	9.075118	0.002592	0.37908			SLC6A17	K05048	-8.948	4.240739	8.491492	0.003569	0.385571		
NECTIN2	K06531	-5.16626	7.908332	7.628121	0.005748	0.467981	nectin-2	LOC110215	NMUR1	K05052	-10.8373	3.10633	7.710571	0.005491	0.419336		
TMEM233	K06566	-6.15284	7.415103	9.074478	0.002593	0.37908	dispanin su	LOC110203	CSF3R	K05061	5.537437	11.15352	9.820072	0.001727	0.313216		
IFITM2	K06566	-6.81617	7.84318	10.9367	0.000943	0.271327	interferon-	LOC110202	PDGFRB	K05089	-11.0902	3.511122	8.796661	0.003019	0.376562		
VCAN	K06793	-5.64795	11.5588	10.50339	0.001192	0.30015			FLT1	K05096	-10.4414	3.479376	8.070282	0.004501	0.406923		
SEMA3D	K06840	6.856967	4.372712	8.523796	0.003506	0.385212			FLT4	K05097	-6.08894	5.005001	6.949418	0.008386	0.466414		
SRGN	K06849	-5.4661	10.0283	9.379717	0.002195	0.37908			GRIN2C	K05211	-10.3785	2.817897	6.879824	0.008719	0.466956		
CYP2B11	K07412	10.51727	2.827089	8.978343	0.002733	0.379163	cytochrom	LOC110198	CCL3	K05408	-8.19786	4.566051	8.060129	0.004526	0.406923	C-C motif c	LOC110192261
SRGAP3	K07526	9.819184	4.61679	14.9211	0.000112	0.127119			CXCL9	K05416	-10.3095	3.491648	7.962891	0.004776	0.410497		
KRT85	K07605	10.35428	2.612397	8.56467	0.003428	0.385212	keratin, tyf	LOC110194	GDNF	K05452	-9.95643	4.171471	9.358149	0.002221	0.328202		
B3GNT4	K07971	9.109081	3.197174	8.075417	0.004488	0.419449			SLC1A3	K05614	-10.3452	2.830787	6.863069	0.008801	0.466956		

FCER1G	K07983	-7.42538	9.419039	13.69912	0.000215	0.157612		ABCA12	K05646	-10.705	4.416835	11.22192	0.000809	0.255336	
NCF1	K08011	-5.04173	9.984292	8.352496	0.003853	0.396846		ABCB1	K05658	-7.96688	3.92795	6.546955	0.010508	0.491544	
CCRL2	K08373	-7.96305	7.817002	12.90933	0.000327	0.171082		PLCB1	K05858	-11.2275	3.508522	8.930664	0.002805	0.365774	
P2RY13	K08388	-12.4461	5.732757	11.69771	0.000626	0.218276		SPTBN5	K06115	-11.1545	5.494331	17.06523	3.62E-05	0.050562	
HCAR2	K08402	-6.71016	9.534761	12.05079	0.000518	0.213505		COL1A1	K06236	-11.6073	4.079409	11.133	0.000848	0.255336	
GPR26	K08411	10.77781	3.196777	10.03228	0.001539	0.340732		COL1A2	K06236	-9.97986	3.932976	8.442404	0.003667	0.392234	
TTBK1	K08815	7.026107	4.707751	10.01452	0.001554	0.340732		COL4A5	K06237	-10.2403	2.895367	6.830432	0.008963	0.466956	
MYO3A	K08834	10.24849	4.251535	13.48367	0.000241	0.158879		Col6a4	K06238	-8.60087	4.760025	9.927771	0.001629	0.31032 collagen alj LOC110209064	
NEK5	K0885	10.64744	3.12126	9.693484	0.00185	0.364531		COL6A5	K06238	-11.548	5.216768	15.89054	6.72E-05	0.062065	
ZNF561	K09228	10.01635	2.7831	8.371638	0.003812	0.396846	zinc finger	LOC110193	HSPG2	K06255	-6.16622	5.367191	8.033592	0.004593	0.406923
ZNF251	K09228	10.37125	2.884721	8.870463	0.002899	0.383229	zinc finger	LOC110214	CD36	K06259	-9.61149	3.793938	7.885547	0.004984	0.410738
SOX8	K09270	11.22753	3.514473	11.49412	0.000698	0.231646		SPN	K06477	4.99688	8.711057	7.461855	0.006303	0.43506	
SPI1	K09438	-6.73339	8.443892	11.26687	0.000789	0.245861		IGSF1	K06512	-10.9645	3.390446	8.398956	0.003755	0.395827 immunoglob LOC110220196	
IL8	K10030	-5.81208	10.46498	10.41732	0.001249	0.308747		SIGLEC14	K06549	6.137406	6.321071	7.243157	0.007119	0.442037 sialic acid-t LOC110219799	
ZBTB16	K10055	8.273379	3.993338	9.385166	0.002188	0.37908		IFITM2	K06566	5.392642	7.84318	7.679939	0.005585	0.419336 interferon- LOC110202976	
CLEC4E	K10059	-5.93611	7.598522	8.926431	0.002812	0.382289		PLK1	K06631	-10.4736	3.029845	7.248995	0.007096	0.442037	
TBX2	K10176	11.52817	3.968449	13.65123	0.00022	0.157612		BTNL2	K06712	-10.3543	2.612397	6.689689	0.009699	0.482388 butyrophili LOC110194075	
MYH11	K10352	5.33005	5.180803	7.737762	0.005409	0.459665		BTNL2	K06712	-9.91654	2.987605	6.693712	0.009677	0.482388 butyrophili LOC110210621	
MYO15A	K10361	6.002619	5.191853	9.362354	0.002216	0.37908		CNTN5	K06763	-11.2782	3.663981	9.3612	0.002217	0.328202	
ANK2	K10380	7.141117	5.491942	13.36105	0.000257	0.158879		IGLON5	K06773	-10.6472	2.94746	7.259304	0.007055	0.442037	
KIF26B	K10404	7.445518	4.771352	11.10804	0.00086	0.259831		ACAN	K06792	-11.3794	4.175631	11.22656	0.000807	0.255336	
DNAH5	K10408	6.995315	4.454639	9.120803	0.002528	0.37908		VCAN	K06793	4.410334	11.5588	7.145158	0.007518	0.448864	
MAP1B	K10429	6.189529	4.47826	7.655482	0.005661	0.467981		SLIT1	K06838	-10.8026	3.15152	7.763511	0.005332	0.419336	
MCM9	K10738	10.82669	3.306542	10.36466	0.001285	0.312004	DNA helica	LOC110197	SEMA3E	K06840	-10.3112	2.771378	6.784401	0.009197	0.470142
MMD2	K11064	11.27823	3.61357	11.86008	0.000574	0.216717		SRGN	K06849	4.569121	10.0283	7.043432	0.007957	0.454596	
CUL9	K11970	9.125404	4.479951	13.0726	0.0003	0.168425	cullin-9	LOC110201	SLIT3	K06850	-11.635	4.146843	11.4408	0.000719	0.255336
ISG15	K12159	-5.50157	9.711829	9.324588	0.002262	0.37908		KRT85	K07605	-10.2038	2.759364	6.685665	0.009721	0.482388 keratin, tyf LOC110218182	
GUCY2C	K12320	10.16629	2.694232	8.439283	0.003673	0.393242		GJB3	K07622	-11.0696	3.710231	9.260164	0.002343	0.334232	
TTN	K12567	8.465235	7.43488	25.72442	3.95E-07	0.001409		ADAMTS4	K07764	-11.0287	3.484742	8.673609	0.003229	0.38183	
MEFV	K12803	-6.46834	7.641027	9.977322	0.001585	0.342165		ARL10	K07958	-11.3258	3.642058	9.359761	0.002219	0.328202	
RETN	K13438	-11.3776	6.068172	10.86555	0.00098	0.271327		B3GNT4	K07971	-10.9078	3.197174	7.952067	0.004804	0.410497	
Bf-CRAMP	K13916	-7.25115	11.02452	14.36622	0.000151	0.146251	cathelicidin	LOC110216	FCER1G	K07983	5.989463	9.419039	10.05558	0.001519	0.31032
Bf-CRAMP	K13916	-5.58908	8.926139	9.159973	0.002474	0.37908	cathelicidin	LOC110217	MMP17	K07997	-8.57593	3.856662	6.901357	0.008615	0.466956
IFIT1	K14217	-7.17787	9.145091	12.78489	0.00035	0.176072	interferon-	LOC110192	MMP19	K07998	-8.33312	4.097498	7.156074	0.007473	0.448864
SLCO2B1	K14352	6.732859	4.385307	8.355852	0.003845	0.396846		SLC43A3	K08230	-10.3785	2.807087	6.870568	0.008764	0.466956	
RPP25	K14525	10.27624	2.796593	8.667593	0.00324	0.385212		CCRL2	K08373	6.588391	7.817002	9.722937	0.00182	0.313216	
SLC15A5	K14639	9.882867	2.150686	7.636786	0.00572	0.467981		P2RY8	K08386	-7.92396	3.932478	6.507541	0.010744	0.498569	
SHANK2	K15009	7.14377	4.136195	8.164567	0.004273	0.409656		GPR68	K08408	-10.506	3.365964	7.908177	0.004922	0.410738	
SIX1	K15614	10.75202	3.505586	10.80758	0.001011	0.271327		GPR84	K08421	-4.56276	6.896508	7.122178	0.007615	0.448864	
MUC16	K16145	10.58975	3.925609	11.96339	0.000543	0.213505	mucin-16	LOC110203	ADAMTS17	K08631	-9.53065	3.498336	6.871573	0.008759	0.466956
RGS18	K16449	-12.2421	5.522225	10.78979	0.001021	0.271327		SBK1	K08858	-7.71208	4.673417	8.517819	0.003518	0.385571	
TIMP1	K16451	-6.04127	6.793091	8.109875	0.004404	0.418032		PLK3	K08862	4.920907	7.474183	6.621804	0.010076	0.489235	
PCDHAC1	K16493	10.2039	2.71859	8.505692	0.003541	0.385212	protocadherin	LOC110220	NPAS1	K09098	-10.4735	3.094713	7.36263	0.006661	0.442037
PCDHGC4	K16497	4.725886	7.034222	10.03833	0.001534	0.340732	protocadherin	LOC110220	ZNF205	K09228	-11.8024	4.116622	11.53098	0.000685	0.255336

DCHS1	K16507	6.322043	4.739979	8.677113	0.003223	0.385212	ZNF345	K09228	-9.90902	3.508573	7.277293	0.006985	0.442037	zinc finger	LOC110221328		
MAP7D3	K16807	9.700666	11.30695	38.73031	4.89E-10	6.65E-06	MAP7 dom	LOC110196	SPI1	K09438	5.745335	8.443892	8.83758	0.002952	0.371622		
SPRY4	K17385	8.491005	4.06703	10.01947	0.00155	0.340732	FKBP6	K09572	-10.5916	3.175275	7.614962	0.00579	0.419336				
HOXC10	K17444	10.57675	3.033447	9.419253	0.002148	0.37908	TMPRSS9	K09640	-11.5341	3.913772	10.44131	0.001233	0.284101				
ACOD1	K17724	-7.63696	10.89394	15.21578	9.60E-05	0.126737	IL8	K10030	4.636594	10.46498	7.340716	0.006742	0.442037				
CRYM	K18258	11.41103	3.666987	12.22329	0.000472	0.213505	CLEC4F	K10060	-10.2761	2.890615	6.856529	0.008833	0.466956	C-type lect	LOC110218459		
DYSF	K18261	9.693813	5.572705	19.76606	8.76E-06	0.023832	COLEC12	K10062	-8.16747	5.073547	10.01569	0.001553	0.31032				
NEB	K18267	5.974449	5.169835	9.229383	0.002382	0.37908	LGALS9C	K10093	-9.43372	3.649997	7.371513	0.006628	0.442037	galectin-9C	LOC110192174		
TDRD15	K18405	7.074194	4.285679	8.581732	0.003396	0.385212	TLR9	K10161	-10.2761	2.918268	6.889993	0.00867	0.466956				
TDRD5	K18407	8.099112	3.425609	7.461279	0.006305	0.48991	MYH11	K10352	-11.5143	5.180803	15.85434	6.85E-05	0.062065				
DUSP9	K18498	10.16632	2.677811	8.422761	0.003707	0.393462	MYH7B	K10352	-12.4918	4.795777	15.63153	7.70E-05	0.064225				
TCHH	K18626	5.315557	7.240832	12.55207	0.000396	0.192295	MYO7A	K10359	-6.851	5.166146	8.720794	0.003147	0.378659				
SLF1	K18757	7.037173	4.284279	8.519582	0.003514	0.385212	MYO15A	K10361	-9.223	5.191853	12.65762	0.000374	0.169623				
SUN2	K19347	12.37752	4.630274	18.93194	1.36E-05	0.026709	SUN dom	LOC110203	FMN1	K10367	-9.74657	3.566068	7.229595	0.007173	0.442037	formin-1	LOC110214857
JPH2	K19530	10.87302	3.852662	12.12511	0.000498	0.213505	ANK2	K10380	-9.74657	5.491942	10.13574	0.001455	0.309069				
MACF1	K19827	9.329378	3.395018	8.824245	0.002973	0.383229	microtubul	LOC110214	DST	K10382	-9.72186	3.224148	6.89865	0.008628	0.466956	dystonin-lil	LOC110200818
SYT2	K19902	6.957191	4.246629	8.248969	0.004079	0.407767	DST	K10382	-5.96444	5.065925	6.9377	0.008441	0.466414	dystonin	LOC110214423		
TNFAIP2	K19989	-6.22513	11.44258	11.94963	0.000547	0.213505	KIF24	K10393	-8.88901	4.142827	8.087044	0.004459	0.406923				
TAGAP	K20654	-4.87421	9.034811	7.585355	0.005886	0.469552	KIF2C	K10393	-10.3783	2.931444	6.998789	0.008158	0.462188				
AEBP1	K21392	7.890164	4.069787	9.028078	0.002659	0.379163	KIFC1	K10405	-10.9858	3.653626	9.02384	0.002666	0.355337				
CYBB	K21421	-6.06812	6.660558	7.781063	0.005281	0.453255	cytochrom	LOC110203	DNAH1	K10408	-6.6192	4.764218	7.238908	0.007135	0.442037		
MYRIP	K22237	11.19665	3.449487	11.25229	0.000796	0.245861	DNAH17	K10408	-7.70304	4.9047	9.196265	0.002426	0.336575				
Pseudo	N/A	-5.99608	8.098983	9.527548	0.002025	0.37908	Pseudo	LOC110211	MAP2	K10430	-8.09668	4.517613	8.586251	0.003388	0.385571		
uncharacte	N/A	-5.73974	8.072795	8.866582	0.002905	0.383229	uncharacte	LOC110213	KLHL5	K10442	-10.7935	3.416784	8.288682	0.00399	0.4019		
IGKC	N/A	-5.45843	8.376952	8.548245	0.00346	0.385212	Ig kappa ch	LOC110202	ZBTB47	K10518	-10.9406	4.179013	10.66603	0.001092	0.269878		
IGHA2	N/A	-5.16436	8.93868	8.180992	0.004234	0.409656	immunoglob	LOC110195	TRIM63	K10655	-10.7523	3.367866	8.143273	0.004323	0.406923		
Pseudo	N/A	5.976445	4.829452	8.069042	0.004504	0.419449	Pseudo	LOC110192	GINS4	K10735	-10.9496	3.593452	8.844418	0.002941	0.371622		
Pseudo	N/A	6.355792	6.484914	14.56933	0.000135	0.141404	Pseudo	LOC110222	DNA2	K10742	-10.7011	3.101779	7.57927	0.005906	0.419336		
Pseudo	N/A	6.498159	8.183468	18.90574	1.38E-05	0.026709	Pseudo	LOC110204	RRM2	K10808	-9.54925	3.27525	6.836729	0.008932	0.466956		
uncharacte	N/A	6.947519	4.075819	7.54073	0.006033	0.476945	uncharacte	LOC110216	ASXL3	K11471	-11.4287	3.743073	9.753664	0.00179	0.313216		
uncharacte	N/A	7.344245	4.175125	8.617278	0.003331	0.385212	uncharacte	LOC110214	CENPE	K11498	-9.09729	4.804953	10.74913	0.001044	0.268071		
Pseudo	N/A	7.762366	3.985594	8.605374	0.003353	0.385212	Pseudo	LOC110202	CENPF	K11499	-9.03182	5.20905	10.81542	0.001007	0.268071		
uncharacte	N/A	7.831026	8.700448	25.62924	4.15E-07	0.001409	uncharacte	LOC110204	SGO2	K11581	-10.4738	2.951746	7.114699	0.007647	0.448864		
Pseudo	N/A	8.163014	4.228648	10.16582	0.001431	0.335524	Pseudo	LOC110197	ISG15	K12159	5.735535	9.711829	9.677633	0.001866	0.313216		
Pseudo	N/A	8.553402	3.375712	7.891769	0.004967	0.438187	Pseudo	LOC110216	HECW1	K12167	-12.0912	4.557909	13.95468	0.000187	0.120867		
uncharacte	N/A	9.008606	9.003446	31.54293	1.96E-08	0.000133	uncharacte	LOC110204	GUCY1A2	K12318	-11.7657	4.737209	14.17347	0.000167	0.119383		
Pseudo	N/A	9.1945	3.260902	8.316794	0.003929	0.401678	Pseudo	LOC110216	MRV1	K12337	-11.6352	4.013074	10.91873	0.000952	0.268071		
uncharacte	N/A	9.55104	5.12833	17.32221	3.16E-05	0.053674	uncharacte	LOC110217	NEU4	K12357	-10.7079	3.124378	7.626992	0.005751	0.419336		
uncharacte	N/A	9.723698	2.578008	7.842571	0.005104	0.444883	uncharacte	LOC110205	MYBPC2	K12558	-9.89037	3.662679	7.587741	0.005878	0.419336		
Pseudo	N/A	9.807812	2.223046	7.628339	0.005747	0.467981	Pseudo	LOC110206	TTN	K12567	-7.51108	7.43488	16.87738	3.99E-05	0.050562		
uncharacte	N/A	9.915801	3.912245	11.32691	0.000764	0.245861	uncharacte	LOC110215	MYBPC3	K12568	-11.1485	4.64868	12.83508	0.00034	0.169623		
uncharacte	N/A	9.95368	2.224928	7.774453	0.0053	0.453255	uncharacte	LOC110215	ISG20	K12579	4.620998	9.11343	6.851008	0.008861	0.466956		
uncharacte	N/A	10.04735	2.544398	8.16224	0.004278	0.409656	uncharacte	LOC110206	CCL4	K12964	-10.175	2.604589	6.538842	0.010556	0.49155	C-C motif c	LOC110221243
Pseudo	N/A	10.41073	2.995023	9.128699	0.002517	0.37908	Pseudo	LOC110203	CELF6	K13207	-7.05622	4.813629	7.889696	0.004973	0.410738		

uncharacte	N/A	10.47393	2.886102	8.988631	0.002717	0.379163	uncharacte	LOC110205	ABHD1	K13696	-10.5633	3.020914	7.311952	0.006851	0.442037
uncharacte	N/A	10.60517	2.884832	9.142639	0.002498	0.37908	uncharacte	LOC110215	PIP5K1L	K13712	-11.0477	4.288221	11.24469	0.000799	0.255336
PLAC8	No KO	-8.16638	7.04413	11.74385	0.000611	0.218276			BEST1	K13878	-10.0663	3.554951	7.844669	0.005098	0.415097
JCHAIN	No KO	-6.33214	7.069047	9.165493	0.002467	0.37908			MARCO	K13884	-9.61217	3.671977	7.602201	0.005831	0.419336
NGP	No KO	-5.5637	7.012403	7.61691	0.005784	0.468096	neutrophili	LOC110217	KLHL33	K13957	-10.8743	3.241012	8.00135	0.004675	0.406923
VSIR	No KO	-5.54128	7.803693	8.287248	0.003993	0.405219			MOV10L1	K13983	-11.0496	3.430699	8.572225	0.003414	0.385571
RIN3	No KO	-5.48938	7.723385	8.180555	0.004235	0.409656			IFIT1	K14217	6.434765	9.145091	10.82403	0.001002	0.268071
TMEM140	No KO	-5.47182	7.270937	7.665994	0.005628	0.467981			SCRN1	K14358	-11.9041	4.196736	12.007	0.00053	0.212066
IFIT3	No KO	-5.14017	10.59581	8.826321	0.00297	0.383229	interferon-	LOC110195	SLC5A10	K14390	-10.3986	2.706923	6.803952	0.009097	0.467943
TENM4	No KO	5.420449	5.556261	8.983661	0.002725	0.379163			SULF1	K14607	-10.62	3.026472	7.371534	0.006628	0.442037
CFAP46	No KO	5.50601	5.085559	7.881622	0.004995	0.438187			CUBN	K14616	-11.313	3.68295	9.44635	0.002116	0.327986
FAM71A	No KO	5.558894	7.594589	14.17268	0.000167	0.151282	protein FAI	LOC110204	SLC26A10	K14707	-8.58098	4.157284	7.528525	0.006074	0.423549
WDR87	No KO	6.02977	5.886801	11.63799	0.000646	0.219761	WD repeat	LOC110215	SLC9A2	K14722	-10.2032	3.061236	7.064413	0.007865	0.451199
ERIC3	No KO	6.145232	4.924893	8.833914	0.002958	0.383229			SHANK1	K15009	-8.07582	4.25931	7.638572	0.005715	0.419336
ZNF608	No KO	6.159619	4.509178	7.661862	0.005641	0.467981			PIF1	K15255	-10.1662	2.761133	6.656028	0.009884	0.486922
ZNF536	No KO	6.295053	4.7862	8.6215	0.003323	0.385212			MUC16	K16145	-9.46589	5.739134	15.55283	8.03E-05	0.064225
NYAP1	No KO	6.316053	4.37737	7.579395	0.005905	0.469552			TIMP1	K16451	5.603382	6.793091	7.120887	0.007621	0.448864
FAM71B	No KO	6.380576	6.228985	13.85221	0.000198	0.157612	protein FAI	LOC110195	PCNT	K16481	-10.6052	2.884832	7.13237	0.007572	0.448864
LRR1Q1	No KO	6.742808	4.141553	7.525461	0.006085	0.478223			PCNT	K16481	-10.5634	2.955615	7.198239	0.007299	0.446821
GRID2IP	No KO	6.789374	4.622525	9.258852	0.002344	0.37908			STARD9	K16491	-6.71301	5.720607	10.17083	0.001427	0.308056
FBN3	No KO	7.626735	4.07851	8.662845	0.003249	0.385212			PCDHGA2	K16495	-4.34717	7.034222	6.963817	0.008319	0.466414
NAV3	No KO	7.739044	4.154658	9.12797	0.002518	0.37908			PCDHGA5	K16495	-10.3774	3.339566	7.722799	0.005454	0.419336
DNHD1	No KO	7.90526	4.48602	10.94022	0.000941	0.271327			CDHR1	K16501	-11.0073	3.625938	8.98048	0.00273	0.360335
RIMBP3	No KO	8.402338	4.53588	11.94037	0.00055	0.213505	RIMS-bindi	LOC110215	CDHR5	K16505	-10.8148	4.331034	11.09964	0.000864	0.255336
MPP2	No KO	8.57907	3.390567	7.953828	0.0048	0.437504			PTPRG	K16667	-6.71437	4.564771	6.880804	0.008714	0.466956
PLEKHH1	No KO	8.695365	3.605264	8.631529	0.003305	0.385212			TMIGD2	K16668	-10.041	3.177634	7.116076	0.007641	0.448864
GULP1	No KO	8.945499	4.81894	13.95326	0.000188	0.157612			MAP7D3	K16807	-14.3824	11.30695	46.92664	7.42E-12	8.4E-08
ZNF260	No KO	9.075333	3.231609	8.100176	0.004427	0.418032	zinc finger	LOC110197	ANKRD7	K17299	-6.92518	4.964037	8.25072	0.004075	0.405415
FAM170B	No KO	9.190228	5.051315	15.09101	0.000103	0.126737	protein FAI	LOC110206	SPRY4	K17385	-11.8132	4.06703	11.34409	0.000757	0.255336
TOGARAM	No KO	9.413404	3.416258	8.990855	0.002714	0.379163			SYTL3	K17598	-10.2396	3.772889	8.528402	0.003497	0.385571
FBN2	No KO	9.500202	2.456688	7.495375	0.006187	0.483483	fibrillin-2	LOC110195	RGL1	K17635	-10.3775	3.284691	7.616784	0.005784	0.419336
ZNF345	No KO	9.530034	3.508573	9.394782	0.002177	0.37908	zinc finger	LOC110221	ACOD1	K17724	5.393933	10.89394	9.281219	0.002316	0.334232
VSTM5	No KO	9.787616	2.601655	7.934047	0.004852	0.437504			TNS4	K18080	-10.7009	3.214457	7.788812	0.005258	0.419336
CCDC87	No KO	9.823856	2.543507	7.919803	0.004891	0.437504			CRYM	K18258	-11.411	3.666987	9.512752	0.002041	0.327986
BPIFB4	No KO	9.917627	2.442565	7.928192	0.004868	0.437504	BPI fold-co	LOC110211	NEB	K18267	-9.05175	5.169835	12.3032	0.000452	0.186413
CFAP54	No KO	10.00896	3.989681	11.80102	0.000592	0.217654			TDRD6	K18405	-12.5602	4.870736	16.10661	5.99E-05	0.062065
MRO	No KO	10.12587	3.410959	9.713684	0.00183	0.364531			PDE8B	K18437	-11.8518	4.301344	12.41021	0.000427	0.181531
CFAP206	No KO	10.31124	2.727594	8.634182	0.0033	0.385212			ANLN	K18621	-7.83485	4.336163	7.583445	0.005892	0.419336
CAMK2N2	No KO	10.32833	2.697872	8.634658	0.003299	0.385212			SUN2	K19347	-7.08987	5.271254	8.917973	0.002825	0.365774
LRRC7	No KO	10.34391	3.384159	9.936499	0.001621	0.34437			ART5	K19977	-11.0274	4.070246	10.37264	0.001279	0.289949
MATN1	No KO	10.44252	3.018781	9.21761	0.002398	0.37908			LRP1B	K20049	-10.3058	4.677622	11.85013	0.000577	0.224102
LDLRAD2	No KO	10.50436	2.921537	9.07921	0.002586	0.37908			LRP4	K20051	-6.16254	5.142962	7.433858	0.006402	0.439648
CD164L2	No KO	10.59915	3.11102	9.611303	0.001934	0.375761			DOK2	K20234	-7.76728	4.170703	6.933181	0.008463	0.466414
KY	No KO	10.75286	3.070436	9.703074	0.00184	0.364531			ARHGAP21	K20315	-5.4399	5.667789	7.370105	0.006633	0.442037
							RNA-rho G'	LOC110204							120

UNC5CL	No KO	10.80247	3.242965	10.17544	0.001424	0.335524	ARHGAP21	K20315	-10.5633	3.017187	7.305409	0.006876	0.442037	rho GTPase	LOC110220892
WFIKKN1	No KO	10.83212	3.08214	9.826686	0.001721	0.354467	SEC16B	K20353	-10.4106	3.063634	7.252114	0.007083	0.442037		
ZNF474	No KO	11.58483	4.357143	15.78719	7.09E-05	0.107177	zinc finger	LOC1102223	-10.8912	3.227941	7.992382	0.004699	0.406923		
							ARHGAP28	K20639	-10.3782	2.996632	7.108542	0.007673	0.448864		
							ECT2	K20704	-10.3262	4.546403	11.17547	0.000829	0.255336		
							PANX2	K20857	-8.45812	4.911816	9.911334	0.001643	0.31032		
							NLRP1	K20865	-11.0496	3.393647	8.4895	0.003573	0.385571		
							ANTXRL	K20909	-6.89679	4.766919	7.660742	0.005645	0.419336		
							NOTCH4	K20996	-6.45417	4.740078	6.933157	0.008463	0.466414		
							MUC5AC	K21125	5.513959	6.660558	6.611097	0.010136	0.489235	cytochrom	LOC110203146
							CYBB	K21421	-10.8741	3.356134	8.236469	0.004107	0.405415		
							USH1G	K21878	-10.5622	3.492556	8.219863	0.004144	0.405415		
							FAM20C	K21958	-10.896	3.937208	9.765941	0.001778	0.313216		
							UNC45B	K21991	-11.1966	3.449487	8.762574	0.003076	0.378659		
							MYRIP	K22237	-10.8742	3.290547	8.098568	0.004431	0.406923		
							CLSTN3	K22661	-10.3453	2.780146	6.820011	0.009016	0.467327		
							KANK3	K22808	-12.0194	4.347647	12.86554	0.000335	0.169623		
							GPR179	K22961	-10.3557	2.620757	6.697845	0.009655	0.482388		
							UCN	K23142	-7.04819	4.356282	6.700359	0.009641	0.482388		
							PMFBP1	K23223	-10.8132	3.106845	7.693638	0.005543	0.419336		
							CUNH16orf1	N/A	-11.5356	3.930852	10.50239	0.001193	0.282938		
							CUNH16orf2	N/A	-9.3884	4.701689	10.61902	0.00112	0.271882		
							CUNH1orf1	N/A	-10.5135	2.924996	7.104216	0.007692	0.448864		
							CUNH8orf2	N/A	-14.2042	6.484914	28.63376	8.77E-08	0.000298	Pseudo	LOC110220304
							Pseudo	N/A	-11.288	3.691364	9.440864	0.002123	0.327986	Pseudo	LOC110220742
							Pseudo	N/A	-11.278	3.745321	9.59484	0.001952	0.32366	Pseudo	LOC110195951
							Pseudo	N/A	-11.2229	4.844789	13.7742	0.000206	0.12195	Pseudo	LOC110215492
							Pseudo	N/A	-10.9854	3.819205	9.497281	0.002058	0.327986	Pseudo	LOC110213973
							Pseudo	N/A	-10.8023	3.320226	8.091237	0.004449	0.406923	Pseudo	LOC110199229
							Pseudo	N/A	-10.7064	3.834606	9.227502	0.002385	0.334293	Pseudo	LOC110199404
							Pseudo	N/A	-10.6745	3.134749	7.615834	0.005787	0.419336	Pseudo	LOC110197170
							Pseudo	N/A	-10.5333	3.368135	7.93101	0.004861	0.410497	Pseudo	LOC110223090
							Pseudo	N/A	-10.0469	2.790403	6.581158	0.010308	0.49007	Pseudo	LOC110223369
							Pseudo	N/A	-9.87907	4.189003	9.151818	0.002485	0.341365	Pseudo	LOC110203424
							Pseudo	N/A	-9.86663	3.953852	8.595784	0.00337	0.385571	Pseudo	LOC110194165
							Pseudo	N/A	-9.4871	4.276046	9.246812	0.00236	0.334232	Pseudo	LOC110218211
							Pseudo	N/A	-8.72185	4.398933	7.704993	0.005508	0.419336	Pseudo	LOC110210617
							Pseudo	N/A	-8.20258	4.630274	9.096691	0.002562	0.34484	Pseudo	LOC110203563
							Pseudo	N/A	-6.66947	8.183468	15.3299	9.03E-05	0.068249	Pseudo	LOC110204714
							Pseudo	N/A	-5.95065	5.65995	8.299593	0.003966	0.4019	Pseudo	LOC110223355
							Pseudo	N/A	5.17847	8.098983	7.555806	0.005983	0.419336	Pseudo	LOC110211833
							uncharacte	N/A	-16.7526	9.003446	45.9266	1.24E-11	8.4E-08	uncharacte	LOC110204397
							uncharacte	N/A	-16.4426	8.700448	44.13776	3.08E-11	1.4E-07	uncharacte	LOC110204395
							uncharacte	N/A	-12.723	5.138558	17.72914	2.55E-05	0.043335	uncharacte	LOC110203791

uncharacte N/A	-11.5393	3.979246	10.67878	0.001084	0.269878	uncharacte	LOC110220800
uncharacte N/A	-11.4755	3.791218	9.960619	0.0016	0.31032	uncharacte	LOC110195385
uncharacte N/A	-11.3071	3.613685	9.268179	0.002332	0.334232	uncharacte	LOC110222943
uncharacte N/A	-11.0296	3.422315	8.536557	0.003482	0.385571	uncharacte	LOC110207231
uncharacte N/A	-10.9294	3.452057	8.501652	0.003549	0.385571	uncharacte	LOC110221959
uncharacte N/A	-10.7934	3.4315	8.322209	0.003917	0.400483	uncharacte	LOC110202211
uncharacte N/A	-10.6742	3.283771	7.895776	0.004956	0.410738	uncharacte	LOC110211369
uncharacte N/A	-10.6291	2.936832	7.22657	0.007185	0.442037	uncharacte	LOC110211753
uncharacte N/A	-10.3112	2.727299	6.747683	0.009389	0.476333	uncharacte	LOC110201453
uncharacte N/A	-10.1664	2.622687	6.544966	0.01052	0.491544	uncharacte	LOC110202919
uncharacte N/A	-10.1663	2.685533	6.594896	0.010229	0.489235	uncharacte	LOC110220146
uncharacte N/A	-8.90348	3.696645	6.895799	0.008641	0.466956	uncharacte	LOC110203721
uncharacte N/A	-7.72141	4.357199	6.761078	0.009318	0.474542	uncharacte	LOC110192933
uncharacte N/A	-7.48149	4.666827	7.999286	0.004681	0.406923	uncharacte	LOC110218577
uncharacte N/A	-7.12177	4.576328	7.255015	0.007072	0.442037	uncharacte	LOC110207158
uncharacte N/A	-7.07858	4.547116	6.835509	0.008938	0.466956	uncharacte	LOC110219148
uncharacte N/A	-6.82099	5.12833	8.57596	0.003407	0.385571	uncharacte	LOC110217275
uncharacte N/A	-6.22039	5.575924	8.739342	0.003115	0.378659	uncharacte	LOC110204294
uncharacte N/A	5.510721	8.072795	8.17877	0.004239	0.406923	uncharacte	LOC110213904
uncharacte N/A	6.671029	5.94936	7.294007	0.00692	0.442037	uncharacte	LOC110214822
ADAMTSL1 no KO	-7.91445	4.170084	7.191079	0.007328	0.446821		
ALS2CR12 no KO	-11.3964	3.823152	9.975735	0.001587	0.31032		
Bf-CRAMP no KO	6.731994	11.02452	12.80191	0.000346	0.169623	cathelicidin	LOC110216987
BHMG1 no KO	-8.61239	4.384852	8.679784	0.003219	0.38183		
CCDC136 no KO	-8.96344	4.12811	8.134956	0.004343	0.406923		
CCDC96 no KO	-10.3631	2.751643	6.815377	0.009039	0.467327		
CCIN no KO	-10.3109	2.9252	6.931053	0.008473	0.466414		
CFAP46 no KO	-7.40658	5.085559	9.405964	0.002164	0.328202		
CFAP54 no KO	-11.7399	3.989681	10.96027	0.000931	0.268071		
CLRN3 no KO	-10.1663	2.684418	6.594003	0.010234	0.489235		
CMTM7 no KO	-10.3449	2.991085	7.070247	0.007839	0.451199		
CMYA5 no KO	-5.89817	5.590931	8.121263	0.004376	0.406923		
CPAMD8 no KO	-7.52061	4.693654	8.351595	0.003855	0.399392		
DCDC1 no KO	-10.4731	3.294787	7.725988	0.005444	0.419336	doublecortin	LOC110192597
DNHD1 no KO	-12.2268	4.48602	13.87451	0.000196	0.120867		
FAM71A no KO	-8.66611	7.594589	20.80486	5.09E-06	0.011541	protein FAI	LOC110204398
FAM71B no KO	-10.6184	6.228985	20.12955	7.25E-06	0.014076	protein FAI	LOC110193420
FRMPD2 no KO	-8.36755	4.197782	7.710604	0.005491	0.419336		
FRMPD4 no KO	-12.5219	4.833198	15.85931	6.83E-05	0.062065		
GPM6B no KO	-8.00933	4.655692	8.429686	0.003692	0.392234		
GRIA1 no KO	-6.46868	4.850723	6.663412	0.009843	0.486672		
HAVCR2 no KO	5.972461	6.930189	7.937212	0.004844	0.410497		
IFIT3 no KO	4.705312	10.59581	7.562566	0.005961	0.419336	interferon-	LOC110198959
ITIH4 no KO	-9.45649	3.782194	7.414418	0.006472	0.442037	inter-alpha	LOC110197543

KIAA1324L	no KO	-9.48406	3.392233	6.620829	0.010081	0.489235	
KIAA1755	no KO	-11.3297	3.915538	10.20646	0.0014	0.307035	
LOXHD1	no KO	-11.2781	3.697293	9.447058	0.002116	0.327986	lipoxygena LOC110221375
LTF	no KO	5.117372	8.836033	7.860398	0.005054	0.413981	lactotransf LOC110208182
MEGF11	no KO	-10.6813	4.450572	11.34412	0.000757	0.255336	
PATL2	no KO	-5.95388	5.301088	7.241959	0.007123	0.442037	
PLAC8	no KO	7.620532	7.04413	10.48047	0.001207	0.282938	
PLEKHA4	no KO	-11.4599	3.875321	10.22231	0.001388	0.307035	
PLEKHO1	no KO	-10.3108	2.982331	7.026015	0.008035	0.457118	
PRR36	no KO	-8.69798	3.879898	6.799496	0.00912	0.467943	proline-rici LOC110196988
PRR5L	no KO	-11.7911	4.396486	12.77812	0.000351	0.169623	
PRX	no KO	-9.24645	3.688987	7.064475	0.007864	0.451199	
PTCHD3	no KO	-10.239	3.388834	7.686118	0.005566	0.419336	
RCOR2	no KO	-10.5342	2.938835	7.144318	0.007522	0.448864	
RETN	no KO	12.5698	6.068172	12.66811	0.000372	0.169623	
SAMSN1	no KO	-4.90184	5.975463	6.548104	0.010501	0.491544	
SCHIP1	no KO	-10.4736	3.040705	7.267884	0.007021	0.442037	schwannor LOC110210081
SLITRK5	no KO	-10.7012	3.060568	7.504239	0.006157	0.427108	
SMOC2	no KO	-10.599	3.180858	7.632065	0.005735	0.419336	
SYNDIG1	no KO	-10.592	2.985742	7.275317	0.006992	0.442037	
TCF23	no KO	-10.5331	3.439009	8.077474	0.004483	0.406923	
TENM4	no KO	-13.2446	5.556261	21.10683	4.35E-06	0.011541	
TEX15	no KO	-11.5791	3.984833	10.747	0.001045	0.268071	
TLCD2	no KO	-10.4928	4.195124	9.982423	0.001581	0.31032	
TRIL	no KO	-10.5319	3.860822	9.105959	0.002549	0.34484	
TTC25	no KO	-7.07575	4.875089	8.232225	0.004116	0.405415	
UNC80	no KO	-6.86453	4.385237	6.592178	0.010245	0.489235	
WDR87	no KO	-9.75705	5.886801	16.83076	4.09E-05	0.050562	WD repeat LOC110219911
WDR93	no KO	-10.047	2.7732	6.567298	0.010389	0.490976	
WFIKKN1	no KO	-10.8321	3.08214	7.660905	0.005644	0.419336	
XIRP2	no KO	-11.7023	4.134975	11.47839	0.000704	0.255336	
ZCCHC24	no KO	-10.1664	2.648606	6.565464	0.010399	0.490976	
ZNF469	no KO	-7.83261	5.753497	12.55208	0.000396	0.173685	