

Supplementary Materials, Table 1: List of differentially expressed genes with  $\text{padj} < 0.05$  and  $|\log_2\text{FC}| \geq 1$  in the hippocampus of LPS vs. SAL

	Ensembl gene ID	Pos	Gene symbol	$\log_2\text{FC}$	pvalue	padj
1.	ENSRNOG00000000768	20:1876173-1897814	Ubd	6.58	2.62E-08	2.16E-05
2.	ENSRNOG00000024899	14:15253125-15258207	Cxcl13	5.84	2.07E-17	2.94E-14
3.	ENSRNOG00000032708	20:4039413-4049711	RT1-Bb	5.7	4.94E-13	5.53E-10
4.	ENSRNOG00000033215	20:4087618-4097190	RT1-Db1	4.48	1.07E-23	2.41E-20
5.	ENSRNOG00000032844	20:4127644-4132616	RT1-Da	4.4	7.29E-29	3.81E-25
6.	ENSRNOG00000000451	20:4066132-4070721	RT1-Ba	4.19	6.37E-23	1.25E-19
7.	ENSRNOG00000018735	18:56071478-56080849	Cd74	3.86	2.45E-27	7.67E-24
8.	ENSRNOG00000004649	3:121876263-121882726	Il1b	3.5	1.84E-10	1.80E-07
9.	ENSRNOG00000030431	20:4106189-4125387	RT1-Db2	3.41	4.28E-05	1.18E-02
10.	ENSRNOG00000042220	3:146484238-146491837	Vsx1	3.29	7.59E-07	4.10E-04
11.	ENSRNOG00000002217	14:10692764-10714524	Plac8	3.15	4.12E-06	1.70E-03
12.	ENSRNOG00000046834	9:9721105-9747167	C3	3.02	6.08E-22	1.06E-18
13.	ENSRNOG00000037167	8:119260618-119265157	Rtp3	2.89	2.36E-04	4.20E-02
14.	ENSRNOG00000033984	5:154037202-154058880	Ifnlr1	2.68	1.23E-13	1.49E-10
15.	ENSRNOG00000014464	16:85275678-85306366	Tnfsf13b	2.56	8.42E-08	5.89E-05
16.	ENSRNOG00000002659	10:5213350-5260608	Ciita	2.27	5.36E-07	3.00E-04
17.	ENSRNOG00000016294	4:157383052-157408176	Cd4	2.15	5.25E-24	1.37E-20
18.	ENSRNOG00000012789	19:55176258-55183557	Mlnr	2.11	5.03E-06	2.02E-03
19.	ENSRNOG00000033444	16:81803110-81822716	F10	2.03	9.87E-07	5.16E-04
20.	ENSRNOG00000014227	1:103298174-103323476	Mrgprx3	1.87	1.84E-07	1.11E-04
21.	ENSRNOG00000024000	1:89314558-89329418	Cd22	1.79	3.19E-09	2.94E-06
22.	ENSRNOG00000008134	10:12046541-12056311	Mefv	1.55	2.16E-04	3.94E-02
23.	ENSRNOG00000046254	9:9431860-9585865	Adgre1	1.5	1.56E-16	2.04E-13
24.	ENSRNOG00000001480	12:25497104-25506300	Ncf1	1.32	8.65E-08	5.89E-05
25.	ENSRNOG00000017980	1:198744050-198781750	Itgal	1.19	8.47E-05	2.01E-02
26.	ENSRNOG00000000187	7:119554354-119568776	Csf2rb	1.07	1.81E-05	5.90E-03
27.	ENSRNOG00000001959	11:37891156-37914983	Mx1	1.02	2.43E-04	4.27E-02
28.	ENSRNOG00000001216	20:11436267-11482051	Trpm2	0.95	7.74E-12	8.09E-09
29.	ENSRNOG00000007350	7:119783849-119797098	Rac2	0.95	5.56E-05	1.40E-02
30.	ENSRNOG00000012972	4:148398892-148446303	Alox5	-0.96	1.43E-04	2.76E-02
31.	ENSRNOG00000031207	4:40161285-40169564	LOC500035	-1.04	2.33E-27	7.67E-24

32.	ENSRNOG00000002979	13:83403264-83425641	Tbx19	-1.06	1.93E-04	3.60E-02
33.	ENSRNOG00000047459	17:43734461-43735120	H1f4	-1.98	1.25E-05	4.35E-03

Supplementary Materials, Table 2: List of differentially expressed genes with  $\text{padj} < 0.05$  and  $|\log_2\text{FC}| \geq 1$  in the hippocampus of DEX+LPS vs. DEX+SAL

	Ensembl gene ID	Pos	Gene symbol	log2FC	pvalue	padj
1.	ENSRNOG00000024899	14:15253125-15258207	Cxcl13	7.4	3.61E-12	3.62E-10
2.	ENSRNOG00000032708	20:4039413-4049711	RT1-Bb	6.4	2.48E-25	9.25E-23
3.	ENSRNOG00000000451	20:4066132-4070721	RT1-Ba	5.7	4.30E-19	7.85E-17
4.	ENSRNOG00000033215	20:4087618-4097190	RT1-Db1	5.6	3.50E-20	7.24E-18
5.	ENSRNOG00000032844	20:4127644-4132616	RT1-Da	5.6	4.96E-18	7.84E-16
6.	ENSRNOG00000018735	18:56071478-56080849	Cd74	5.3	1.52E-15	1.96E-13
7.	ENSRNOG00000026762	20:3889370-3892449	RT1-DOa	4.9	1.65E-05	5.30E-04
8.	ENSRNOG00000000768	20:1876173-1897814	Ubd	4.1	3.30E-06	1.29E-04
9.	ENSRNOG00000037167	8:119260618-119265157	Rtp3	3.7	7.13E-06	2.52E-04
10.	ENSRNOG00000004649	3:121876263-121882726	Il1b	3.6	1.32E-10	1.13E-08
11.	ENSRNOG00000046834	9:9721105-9747167	C3	3.2	7.86E-23	2.23E-20
12.	ENSRNOG00000002659	10:5213350-5260608	Ciita	3.2	1.87E-08	1.11E-06
13.	ENSRNOG00000017485	5:58943027-58950373	Cd72	3.2	1.47E-05	4.78E-04
14.	ENSRNOG00000001724	11:73936750-73963852	Atp13a3	2.7	1.33E-07	6.81E-06
15.	ENSRNOG00000004947	7:15024693-15027933	Zfp871	2.7	1.55E-25	6.09E-23
16.	ENSRNOG00000016921	10:88378751-88389347	Klhl11	2.6	3.14E-55	8.01E-52
17.	ENSRNOG00000033984	5:154037202-154058880	Ifnlr1	2.6	1.33E-08	8.45E-07
18.	ENSRNOG00000006569	6:147094097-147172813	Itgb8	2.6	9.93E-32	5.44E-29
19.	ENSRNOG00000010996	14:20960052-20992753	Mob1b	2.5	1.74E-24	5.80E-22
20.	ENSRNOG00000042220	3:146484238-146491837	Vsx1	2.5	8.03E-04	1.47E-02
21.	ENSRNOG00000014227	1:103298174-103323476	Mrgprx3	2.4	2.77E-11	2.53E-09
22.	ENSRNOG00000010699	8:96395317-96401465	Trim43a	2.4	2.90E-04	6.12E-03
23.	ENSRNOG00000014464	16:85275678-85306366	Tnfsf13b	2.3	1.98E-06	8.08E-05
24.	ENSRNOG00000002537	X:20316893-20454357	Wnk3	2.3	1.01E-22	2.81E-20
25.	ENSRNOG00000011623	2:41570597-41785792	Rab3c	2.3	5.97E-62	3.05E-58
26.	ENSRNOG00000006967	X:128409472-128453000	Xiap	2.3	2.08E-22	5.69E-20
27.	ENSRNOG00000014511	7:131330913-131336183	Alg10	2.3	6.28E-22	1.66E-19
28.	ENSRNOG00000011341	2:56052643-56101803	Rictor	2.1	3.24E-38	2.48E-35
29.	ENSRNOG00000021552	X:75382598-75407217	Uppt	2.1	1.08E-10	9.37E-09

30.	ENSRNOG00000004828	3:44270653-44342355	Acvr1c	2.1	3.04E-23	9.14E-21
31.	ENSRNOG00000016294	4:157383052-157408176	Cd4	2.1	1.59E-07	8.05E-06
32.	ENSRNOG00000006583	4:95946025-95970666	Hpgds	2.1	1.28E-05	4.25E-04
33.	ENSRNOG00000002496	11:66316606-66566331	Stxbp5l	2	2.86E-73	4.39E-69
34.	ENSRNOG00000014891	1:241501679-241557651	Ptar1	2	5.31E-21	1.18E-18
35.	ENSRNOG00000026907	13:78836587-78852182	Zbtb37	2	7.78E-07	3.47E-05
36.	ENSRNOG00000000454	20:4020317-4026346	RT1-DOb	2	5.50E-05	1.50E-03
37.	ENSRNOG00000003748	X:54390733-54409466	RGD1565785	2	5.44E-04	1.05E-02
38.	ENSRNOG00000003680	10:27973681-28187565	Gabrb2	2	7.28E-41	8.58E-38
39.	ENSRNOG00000010065	15:60803098-60959769	Dgkh	1.9	5.26E-24	1.71E-21
40.	ENSRNOG00000047211	15:48601266-48670257	Fzd3	1.9	1.83E-42	2.55E-39
41.	ENSRNOG00000007706	5:124574079-124642569	Prkaa2	1.9	1.78E-34	1.18E-31
42.	ENSRNOG00000037919	X:74200972-74244846	Chic1	1.8	9.62E-11	8.42E-09
43.	ENSRNOG00000046515	9:6966908-7053387	St6gal2	1.8	2.02E-10	1.69E-08
44.	ENSRNOG00000038190	18:86420361-86878142	Dok6	1.8	2.06E-43	3.52E-40
45.	ENSRNOG00000012176	18:68488942-68551558	Rab27b	1.8	1.02E-21	2.60E-19
46.	ENSRNOG00000046254	9:9431860-9585865	Adgre1	1.8	3.47E-10	2.85E-08
47.	ENSRNOG00000014089	18:24961245-25025897	Map3k2	1.7	2.14E-11	1.99E-09
48.	ENSRNOG00000013624	1:102982123-103014388	Uevld	1.7	3.73E-10	3.00E-08
49.	ENSRNOG00000014248	9:75021790-75528644	Erbp4	1.7	2.65E-19	4.90E-17
50.	ENSRNOG00000014486	1:245859633-246110218	Rfx3	1.7	5.11E-30	2.45E-27
51.	ENSRNOG00000005479	3:92640752-92665644	Slc1a2	1.7	1.19E-31	6.06E-29
52.	ENSRNOG00000005206	7:106717229-107009330	Kcnq3	1.7	6.01E-61	2.30E-57
53.	ENSRNOG00000027152	14:44038614-44078897	N4bp2	1.7	4.45E-12	4.34E-10
54.	ENSRNOG00000010484	5:100924622-100977902	Zdhhc21	1.7	3.61E-26	1.45E-23
55.	ENSRNOG00000033942	10:5930298-6119990	Grin2a	1.7	1.98E-57	6.06E-54
56.	ENSRNOG00000005359	3:51883559-52120290	Csrnp3	1.7	1.95E-19	3.69E-17
57.	ENSRNOG00000009542	6:97872831-98157087	Kcnh5	1.6	7.40E-05	1.93E-03
58.	ENSRNOG00000001480	12:25497104-25506300	Ncf1	1.6	1.58E-18	2.63E-16
59.	ENSRNOG00000031669	11:79205730-79703736	Lpp	1.6	9.57E-04	1.70E-02
60.	ENSRNOG00000014550	2:54191538-54360780	Plcx3	1.6	3.19E-05	9.34E-04
61.	ENSRNOG00000017980	1:198744050-198781750	Itgal	1.6	1.41E-07	7.22E-06
62.	ENSRNOG00000011059	3:112684152-112789289	Ttbk2	1.6	8.91E-29	4.01E-26

63.	ENSRNOG00000027151	11:65747036-65759581	Lrrc58	1.6	5.97E-23	1.76E-20
64.	ENSRNOG00000049849	X:107695491-107723594	Fam199x	1.6	1.57E-04	3.70E-03
65.	ENSRNOG00000025160	2:224772893-224802997	Tlcd4	1.6	1.88E-17	2.88E-15
66.	ENSRNOG00000005578	8:32165810-32217476	Zbtb44	1.5	2.88E-18	4.65E-16
67.	ENSRNOG00000025539	1:235653121-235813030	Vps13a	1.5	4.93E-22	1.33E-19
68.	ENSRNOG00000018268	19:31524671-31614246	Hhip	1.5	6.41E-14	7.39E-12
69.	ENSRNOG00000003434	13:60546912-60567882	Ro60	1.5	9.80E-09	6.37E-07
70.	ENSRNOG00000011858	16:67350539-67595225	Unc5d	1.4	5.66E-43	8.67E-40
71.	ENSRNOG00000011460	1:13838707-13915594	Arfgef3	1.4	6.92E-38	5.05E-35
72.	ENSRNOG00000008846	5:16791523-16799776	Plag1	1.4	1.18E-18	2.03E-16
73.	ENSRNOG00000000414	20:34575950-34684418	Cep85l	1.4	5.48E-14	6.36E-12
74.	ENSRNOG00000033531	4:15710417-16130848	Cacna2d1	1.4	2.49E-34	1.59E-31
75.	ENSRNOG00000013388	9:61066175-61134963	Pgap1	1.4	9.58E-20	1.88E-17
76.	ENSRNOG00000034190	6:138054662-138662511	Ighm	1.4	5.62E-05	1.52E-03
77.	ENSRNOG00000016334	5:76673990-76756147	Ptbp3	1.4	6.64E-18	1.04E-15
78.	ENSRNOG00000002790	X:75150608-75291938	Abcb7	1.4	2.41E-12	2.48E-10
79.	ENSRNOG00000005159	7:112673465-112833083	Fam135b	1.4	2.57E-12	2.62E-10
80.	ENSRNOG00000004150	X:2435305-2614770	Slc9a7	1.3	7.27E-28	3.18E-25
81.	ENSRNOG00000007528	3:48671079-48831467	Kcnh7	1.3	2.02E-14	2.41E-12
82.	ENSRNOG00000011696	2:56426367-56489415	Lifr	1.3	1.73E-31	8.53E-29
83.	ENSRNOG00000032206	13:21678512-22590586	Cntnap5b	1.3	9.93E-09	6.42E-07
84.	ENSRNOG00000016429	1:151439409-151783392	Grm5	1.3	5.41E-40	4.60E-37
85.	ENSRNOG00000027430	9:76621230-76768806	Ikzf2	1.3	3.70E-03	4.86E-02
86.	ENSRNOG00000001930	11:76747865-76804510	Ccdc50	1.3	5.21E-21	1.17E-18
87.	ENSRNOG00000009145	15:84324470-84748525	Klf12	1.3	1.70E-18	2.77E-16
88.	ENSRNOG00000024000	1:89314558-89329418	Cd22	1.3	8.18E-05	2.11E-03
89.	ENSRNOG00000005214	14:100151210-100217913	Plek	1.2	4.28E-12	4.20E-10
90.	ENSRNOG00000026306	4:68808359-68819928	Clec5a	1.2	1.98E-05	6.17E-04
91.	ENSRNOG00000026962	7:53878610-54027892	Osbp18	1.2	5.98E-25	2.08E-22
92.	ENSRNOG00000011508	X:65040104-65074712	Zc3h12b	1.2	1.11E-18	1.93E-16
93.	ENSRNOG00000005639	X:67656253-67829026	Ar	1.2	4.94E-14	5.78E-12
94.	ENSRNOG00000048161	8:114916122-114920171	Tlr9	1.2	1.22E-06	5.26E-05
95.	ENSRNOG00000003742	X:35599258-35771711	Cdkl5	1.2	1.79E-21	4.50E-19

96.	ENSRNOG00000009899	2:115866701-115891097	Skil	1.2	1.57E-40	1.72E-37
97.	ENSRNOG00000006515	X:63343546-63389989	Klhl15	1.2	8.43E-04	1.53E-02
98.	ENSRNOG000000045771	4:70252366-70330803	Chl1	1.2	1.87E-27	7.97E-25
99.	ENSRNOG000000046452	13:89327794-89433815	Fcgr2b	1.2	1.32E-03	2.19E-02
100.	ENSRNOG000000022196	9:66568074-66676494	Bmpr2	1.1	2.01E-17	3.05E-15
101.	ENSRNOG000000011358	3:94352969-94419048	Hipk3	1.1	2.70E-38	2.18E-35
102.	ENSRNOG000000004218	6:86684413-86713370	Klhl28	1.1	5.44E-05	1.49E-03
103.	ENSRNOG000000031495	17:22832641-22863966	Tmem170b	1.1	3.02E-16	4.06E-14
104.	ENSRNOG000000015692	10:62566732-62630155	Taok1	1.1	7.35E-25	2.50E-22
105.	ENSRNOG000000034269	5:144364269-144436509	Ago3	1.1	2.58E-10	2.13E-08
106.	ENSRNOG000000013886	2:55835151-55983804	Fyb1	1.1	1.21E-09	9.06E-08
107.	ENSRNOG000000008039	8:58202821-58253688	Cul5	1.1	7.74E-32	4.39E-29
108.	ENSRNOG000000011619	8:64573358-64777543	Myo9a	1.1	2.06E-29	9.57E-27
109.	ENSRNOG000000012367	14:55072200-55081551	Pcdh7	1.1	3.89E-17	5.79E-15
110.	ENSRNOG000000011063	13:56015901-56236677	Dennd1b	1.1	3.61E-07	1.71E-05
111.	ENSRNOG000000013281	18:1970914-2094920	Mib1	1.1	2.36E-42	3.02E-39
112.	ENSRNOG000000048686	9:8349033-8442298	AABR07066379.1	1.1	2.66E-05	7.99E-04
113.	ENSRNOG000000042679	1:260732485-260830854	Lcor	1.1	6.15E-15	7.66E-13
114.	ENSRNOG000000013412	9:71230108-71293435	Creb1	1.1	1.94E-04	4.40E-03
115.	ENSRNOG000000013884	16:23447366-23781604	Ps d3	1	5.32E-40	4.60E-37
116.	ENSRNOG000000012759	9:30515089-30844199	Col19a1	1	3.52E-09	2.47E-07
117.	ENSRNOG000000029662	16:9194424-9430743	Wdfy4	1	2.26E-07	1.10E-05
118.	ENSRNOG000000037563	10:56268720-56270640	Cd68	1	1.90E-03	2.92E-02
119.	ENSRNOG000000005957	15:11836286-11912916	Slc4a7	1	1.41E-08	8.92E-07
120.	ENSRNOG000000009196	3:21623041-21670014	Rc3h2	1	2.17E-19	4.06E-17
121.	ENSRNOG000000006980	5:9230984-9257934	Vcpi p1	1	1.38E-18	2.32E-16
122.	ENSRNOG000000025937	8:21448618-21458379	Zfp26	1	1.40E-13	1.58E-11
123.	ENSRNOG000000002863	13:71906702-72367980	Cacna1e	1	4.11E-36	2.86E-33
124.	ENSRNOG000000000277	20:27366213-27437427	Tet1	1	1.75E-05	5.56E-04
125.	ENSRNOG000000002075	14:15059387-15146586	Cnot6l	1	4.70E-21	1.11E-18
126.	ENSRNOG000000004378	10:98576039-98644938	Abca5	1	1.85E-09	1.34E-07
127.	ENSRNOG000000046969	11:71634392-71695000	AABR07034438.1	1	1.91E-06	7.81E-05
128.	ENSRNOG000000008736	13:90967739-90977734	Slamf8	1	2.72E-03	3.83E-02

129.	ENSRNOG00000022331	10:15156207-15159894	Ccdc78	-1	1.65E-05	5.31E-04
130.	ENSRNOG00000022723	9:66335492-66447837	RGD1562029	-1	1.36E-04	3.28E-03
131.	ENSRNOG00000014893	2:251912368-251970768	Wdr63	-1	4.23E-05	1.19E-03
132.	ENSRNOG00000010529	1:56653938-56683731	Thbs2	-1	2.20E-03	3.28E-02
133.	ENSRNOG00000021437	5:155812105-155885829	AABR07073181.1	-1	1.64E-08	1.01E-06
134.	ENSRNOG00000012972	4:148398892-148446303	Alox5	-1	9.88E-06	3.36E-04
135.	ENSRNOG00000003952	13:44523797-44540516	AABR07020879.1	-1	1.65E-05	5.31E-04
136.	ENSRNOG00000029586	8:116776494-116779156	AC128059.1	-1	1.35E-04	3.26E-03
137.	ENSRNOG00000023561	4:158224000-158576978	Ano2	-1	2.17E-03	3.23E-02
138.	ENSRNOG00000024172	1:52907435-52962388	T2	-1	6.79E-05	1.80E-03
139.	ENSRNOG00000007490	5:48303366-48341642	Gabbr2	-1.1	1.95E-03	2.97E-02
140.	ENSRNOG00000025860	19:10363108-10380809	Drc7	-1.1	1.19E-05	3.99E-04
141.	ENSRNOG00000047124	1:197856903-197858016	AABR07005775.1	-1.1	1.02E-03	1.79E-02
142.	ENSRNOG00000047455	6:52345240-52401853	Cdhr3	-1.1	1.08E-03	1.87E-02
143.	ENSRNOG00000026914	16:7345978-7408265	Dnah1	-1.2	1.18E-07	6.13E-06
144.	ENSRNOG00000014937	2:187102833-187113752	Lrrc71	-1.2	1.71E-08	1.04E-06
145.	ENSRNOG00000008911	5:164913906-164927869	Draxin	-1.2	4.34E-05	1.22E-03
146.	ENSRNOG00000037668	20:46271689-46305157	LOC102554658	-1.3	7.76E-08	4.16E-06
147.	ENSRNOG00000015101	17:21521505-21568440	Mak	-1.3	1.44E-03	2.33E-02
148.	ENSRNOG00000016247	9:88964525-89001567	Daw1	-1.4	3.18E-05	9.34E-04
149.	ENSRNOG00000018250	1:72882806-72886488	Tnni3	-1.4	1.66E-03	2.60E-02
150.	ENSRNOG00000037206	4:152860675-152883210	Ccdc77	-1.4	2.00E-06	8.13E-05
151.	ENSRNOG00000038600	1:72874404-72883002	Dnaaf3	-1.4	2.32E-06	9.32E-05
152.	ENSRNOG00000012040	17:8570472-8607494	Slc25a48	-1.5	9.30E-04	1.66E-02
153.	ENSRNOG00000012342	19:33206026-33424972	Ttc29	-1.5	9.82E-05	2.46E-03
154.	ENSRNOG00000012229	1:52887067-52894832	Tbxt	-1.5	5.72E-04	1.10E-02
155.	ENSRNOG00000020132	5:173471010-173484986	Ttll10	-1.6	3.56E-05	1.03E-03
156.	ENSRNOG00000032085	8:127789048-127834637	Dlec1	-1.7	8.78E-10	6.73E-08
157.	ENSRNOG00000027392	3:3724656-3747440	Ccdc187	-1.8	2.09E-05	6.44E-04
158.	ENSRNOG00000015049	8:128169191-128266639	Scn5a	-1.8	7.91E-05	2.04E-03
159.	ENSRNOG00000047459	17:43734461-43735120	H1f4	-1.8	4.77E-05	1.33E-03
160.	ENSRNOG00000049495	7:143345201-143353925	Krt71	-1.9	1.23E-03	2.07E-02
161.	ENSRNOG00000001193	20:10757854-10844178	Hsf2bp	-2.6	1.02E-04	2.55E-03

Supplementary Materials, Table 3: venn\_result27926

Names	total	elements
LPS vs . SAL _ DEX+LPS vs . DEX+SAL	22	ENSRNOG00000046834 ENSRNOG00000012972 ENSRNOG00000014227 ENSRNOG00000032708 ENSRNOG00000042220 ENSRNOG00000024899 ENSRNOG00000000768 ENSRNOG00000047459 ENSRNOG00000033984 ENSRNOG00000017980 ENSRNOG00000002659 ENSRNOG00000004649 ENSRNOG00000033215 ENSRNOG00000016294 ENSRNOG00000032844 ENSRNOG00000014464 ENSRNOG00000037167 ENSRNOG00000000451 ENSRNOG00000001480 ENSRNOG00000046254 ENSRNOG00000024000 ENSRNOG00000018735
DEX+LPS vs . DEX+SAL _ DEX+LPS vs . DEX	84	ENSRNOG00000004150

ENSRNOG00000010699  
ENSRNOG00000004828  
ENSRNOG00000018268  
ENSRNOG00000005159  
ENSRNOG00000033531  
ENSRNOG00000007706  
ENSRNOG00000000414  
ENSRNOG00000011460  
ENSRNOG00000025539  
ENSRNOG00000003742  
ENSRNOG00000009899  
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ENSRNOG00000011508  
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ENSRNOG00000010996  
ENSRNOG00000002075  
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ENSRNOG00000037919  
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ENSRNOG00000009542  
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ENSRNOG00000013624  
ENSRNOG00000007528

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LPS vs . SAL

11

ENSRNOG00000007350  
ENSRNOG00000001959  
ENSRNOG00000002217  
ENSRNOG00000031207  
ENSRNOG00000001216  
ENSRNOG00000030431  
ENSRNOG00000008134  
ENSRNOG00000002979  
ENSRNOG00000033444  
ENSRNOG00000012789  
ENSRNOG00000000187

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DEX+LPS vs . DEX+SAL

55

ENSRNOG00000023561  
ENSRNOG00000014550  
ENSRNOG00000025860  
ENSRNOG00000008039  
ENSRNOG00000018250

ENSRNOG00000029662  
ENSRNOG00000012229  
ENSRNOG00000031669  
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ENSRNOG00000027430  
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ENSRNOG00000014893  
ENSRNOG00000012040  
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ENSRNOG00000012367  
ENSRNOG00000008911  
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DEX+LPS vs . LPS

28

ENSRNOG00000008444  
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ENSRNOG00000023549  
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ENSRNOG00000010597  
ENSRNOG00000001547  
ENSRNOG00000018191

ENSRNOG00000032180  
 ENSRNOG00000003643  
 ENSRNOG00000003882  
 ENSRNOG00000003787  
 ENSRNOG00000042951  
 ENSRNOG00000024998  
 ENSRNOG00000012470  
 ENSRNOG00000008382  
 ENSRNOG00000008869  
 ENSRNOG00000045622  
 ENSRNOG00000024595  
 ENSRNOG00000010111

Supplementary Materials, Table 4: Enriched GO biological process terms for LPS vs. SAL DEGs

Term (Category: GOTERM_BP_DIRECT)	Count	%	PValue	Genes
1. GO:0019886~antigen processing and presentation of exogenous peptide antigen via MHC class II	6	18.75	2.14E-10	Cd74, RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2
2. GO:0002504~antigen processing and presentation of peptide or polysaccharide antigen via MHC class II	5	15.63	3.35E-10	RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2
3. GO:0034341~response to interferon-gamma	6	18.75	2.37E-09	Cd74, Mefv, RT1-Ba, RT1-Db1, Ciita, Ubd
4. GO:0002503~peptide antigen assembly with MHC class II protein complex	5	15.63	3.40E-09	RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2
5. GO:0050778~positive regulation of immune response	5	15.63	5.94E-08	RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2
6. GO:0050870~positive regulation of T cell activation	5	15.63	3.42E-07	RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2
7. GO:0002250~adaptive immune response	6	18.75	6.78E-07	RT1-Ba, RT1-Bb, RT1-Da, RT1-Db1, RT1-Db2, Adgre1
8. GO:0006954~inflammatory response	7	21.88	1.62E-05	Cxcl13, Mefv, Alox5, Ciita, C3, Il1b, Ncf1
9. GO:0019882~antigen processing and presentation	4	12.5	5.64E-05	Cd74, RT1-Ba, RT1-Bb, RT1-Db2
10. GO:0006955~immune response	6	18.75	9.82E-05	Cd74, RT1-Bb, RT1-Db1, RT1-Db2, Tnfsf13b, Il1b
11. GO:0090023~positive regulation of neutrophil chemotaxis	3	9.38	8.66E-04	Cd74, Rac2, Il1b
12. GO:0016064~immunoglobulin mediated immune response	3	9.38	1.13E-03	Cd74, RT1-Da, Csfr2b
13. GO:0006959~humoral immune response	3	9.38	1.35E-03	RT1-Bb, RT1-Db1, Alox5
14. GO:0002469~myeloid dendritic cell antigen processing and presentation	2	6.25	3.12E-03	RT1-Da, RT1-Db1
15. GO:0002491~antigen processing and presentation of endogenous peptide antigen via MHC class II	2	6.25	3.12E-03	RT1-Da, RT1-Db1
16. GO:0043123~positive regulation of I-kappaB kinase/NF-kappaB signaling	4	12.5	3.35E-03	Cd74, RT1-Db1, Il1b, Ubd

17.	GO:0042130~negative regulation of T cell proliferation	3	9.38	3.44E-03	RT1-Ba, RT1-Bb, RT1-Db1
18.	GO:2000516~positive regulation of CD4-positive, alpha-beta T cell activation	2	6.25	6.22E-03	RT1-Da, RT1-Db1
19.	GO:0042102~positive regulation of T cell proliferation	3	9.38	6.40E-03	Tnfsf13b, Itgal, Il1b
20.	GO:0070374~positive regulation of ERK1 and ERK2 cascade	4	12.5	6.43E-03	Cd74, RT1-Db1, C3, Il1b
21.	GO:0048002~antigen processing and presentation of peptide antigen	2	6.25	7.77E-03	RT1-Ba, RT1-Bb
22.	GO:0045622~regulation of T-helper cell differentiation	2	6.25	7.77E-03	RT1-Da, RT1-Db1
23.	GO:0001934~positive regulation of protein phosphorylation	4	12.5	8.05E-03	Cd74, RT1-Db1, C3, Il1b
24.	GO:0043382~positive regulation of memory T cell differentiation	2	6.25	9.32E-03	RT1-Da, RT1-Db1
25.	GO:0032831~positive regulation of CD4-positive, CD25-positive, alpha-beta regulatory T cell differentiation	2	6.25	1.09E-02	RT1-Da, RT1-Db1
26.	GO:0050729~positive regulation of inflammatory response	3	9.38	1.16E-02	Cd74, Mefv, Il1b
27.	GO:0031394~positive regulation of prostaglandin biosynthetic process	2	6.25	1.55E-02	Cd74, Il1b
28.	GO:0050691~regulation of defense response to virus by host	2	6.25	1.55E-02	Ifnlr1, Il1b
29.	GO:0045657~positive regulation of monocyte differentiation	2	6.25	1.70E-02	Cd74, RT1-Db1
30.	GO:0006691~leukotriene metabolic process	2	6.25	2.01E-02	Alox5, Ncf1
31.	GO:0046598~positive regulation of viral entry into host cell	2	6.25	2.01E-02	Cd74, RT1-Db1
32.	GO:0019221~cytokine-mediated signaling pathway	3	9.38	2.06E-02	Csf2rb, Ifnlr1, Il1b
33.	GO:0045893~positive regulation of transcription, DNA-templated	5	15.63	2.71E-02	Cd74, RT1-Db1, Ciita, Il1b, Ncf1
34.	GO:0045087~innate immune response	4	12.5	2.90E-02	Mefv, Mx1, Ciita, C3
35.	GO:0007166~cell surface receptor signaling pathway	3	9.38	2.93E-02	Cxcl13, Adgre1, Itgal
36.	GO:0045582~positive regulation of T cell differentiation	2	6.25	3.83E-02	Cd74, RT1-Ba
37.	GO:0042742~defense response to bacterium	3	9.38	3.83E-02	Cxcl13, Ncf1, Plac8
38.	GO:0002526~acute inflammatory response	2	6.25	4.13E-02	Alox5, Il1b
39.	GO:0010575~positive regulation of vascular endothelial growth factor production	2	6.25	4.28E-02	C3, Il1b
40.	GO:0046597~negative regulation of viral entry into host cell	2	6.25	4.73E-02	Cd74, Ciita
41.	GO:0050832~defense response to fungus	2	6.25	4.88E-02	RT1-Bb, Ncf1

Supplementary Materials, Table 5: Enriched GO biological process terms for DEX+LPS vs. DEX+SAL DEGs

Term (Category: GOTERM_BP_DIRECT)	Count	%	PValue	Genes
1. GO:0019886~antigen processing and presentation of exogenous peptide antigen via MHC class II	8	4,79	1,69E-10	Cd74, Fcgr2b, RT1-Ba, RT1-Bb, RT1-DOa, RT1-DOb, RT1-Da, RT1-Db1
2. GO:0002381~immunoglobulin production involved in immunoglobulin mediated immune response	6	3,59	9,47E-09	RT1-Ba, RT1-Bb, RT1-DOa, RT1-DOb, RT1-Da, RT1-Db1
3. GO:0002503~peptide antigen assembly with MHC class II protein complex	6	3,59	2,61E-08	RT1-Ba, RT1-Bb, RT1-DOa, RT1-DOb, RT1-Da, RT1-Db1
4. GO:0002504~antigen processing and presentation of peptide or polysaccharide antigen via MHC class II	5	2,99	2,01E-07	RT1-Ba, RT1-Bb, RT1-DOb, RT1-Da, RT1-Db1
5. GO:0050870~positive regulation of T cell activation	6	3,59	7,65E-06	RT1-Ba, RT1-Bb, RT1-DOa, RT1-DOb, RT1-Da, RT1-Db1

6.	GO:0019882~antigen processing and presentation	6	3,59	2,28E-05	Cd74, Rab3c, RT1-Ba, RT1-Bb, RT1-DOa, Wdfy4
7.	GO:0034341~response to interferon-gamma	5	2,99	1,44E-04	Cd74, RT1-Ba, RT1-Db1, Ciita, Ubd
8.	GO:0002250~adaptive immune response	7	4,19	1,49E-04	RT1-Ba, RT1-Bb, RT1-DOa, RT1-DOb, RT1-Da, RT1-Db1, Adgre1
9.	GO:0034765~regulation of ion transmembrane transport	6	3,59	1,28E-03	Ca cna2d1, Ca cna1e, Kcnh5, Kcnh7, Kcnq3, Scn5a
10.	GO:1901224~positive regulation of NIK/NF-kappaB signaling	5	2,99	1,84E-03	Cd74, Ago3, Il1b, Rc3h2, Tlr9
11.	GO:0050852~T cell receptor signaling pathway	5	2,99	5,97E-03	Dennd1b, Fyb1, RT1-Bb, RT1-Db1, Rc3h2
12.	GO:0046330~positive regulation of JNK cascade	5	2,99	6,87E-03	Fcgr2b, Taok1, Xiap, Il1b, Ncf1
13.	GO:0050776~regulation of immune response	4	2,39	7,58E-03	Cd22, Dennd1b, Fcgr2b, Tnfsf13b
14.	GO:0006955~immune response	8	4,79	7,65E-03	Cd74, Fyb1, RT1-Bb, RT1-Db1, Tnfsf13b, Itgb8, Il1b, Tlr9
15.	GO:0071363~cellular response to growth factor stimulus	5	2,99	8,13E-03	Acvr1c, Bmpr2, Creb1, Grin2a, Slc4a7
16.	GO:0006468~protein phosphorylation	11	6,58	1,14E-02	Taok1, Wnk3, Acvr1c, Bmpr2, Creb1, Cdkl5, Grm5, Hipk3, Mak, Map3k2, Prka a2
17.	GO:0042391~regulation of membrane potential	5	2,99	1,24E-02	Gabrb2, Gabrr2, Grin2a, Kcnh5, Kcnh7
18.	GO:0002469~myeloid dendritic cell antigen processing and presentation	2	1,19	1,48E-02	RT1-Da, RT1-Db1
19.	GO:0002587~negative regulation of antigen processing and presentation of peptide antigen via MHC class II	2	1,19	1,48E-02	RT1-DOa, RT1-DOb
20.	GO:0002491~antigen processing and presentation of endogenous peptide antigen via MHC class II	2	1,19	1,48E-02	RT1-Da, RT1-Db1
21.	GO:0043410~positive regulation of MAPK cascade	6	3,59	1,80E-02	Cd74, RT1-Db1, Ar, Dok6, Grm5, Tlr9
22.	GO:0051649~establishment of localization in cell	6	3,59	1,80E-02	Fcgr2b, Ano2, Ca cna1e, Daw1, Kcnq3, Scn5a
23.	GO:0048169~regulation of long-term neuronal synaptic plasticity	3	1,79	2,09E-02	Fcgr2b, Grin2a, Grm5
24.	GO:0086048~membrane depolarization during bundle of His cell action potential	2	1,19	2,22E-02	Ca cna2d1, Scn5a
25.	GO:0016064~immunoglobulin mediated immune response	3	1,79	2,22E-02	Cd74, Fcgr2b, RT1-Da
26.	GO:0021549~cerebellum development	4	2,39	2,64E-02	Fcgr2b, Acvr1c, Scn5a)
27.	GO:0021537~telencephalon development	3	1,79	2,64E-02	Erb b4, Scn5a,
28.	GO:0006959~humoral immune response	3	1,79	2,79E-02	RT1-Bb, RT1-Db1, Alox5
29.	GO:2000516~positive regulation of CD4-positive, alpha-beta T cell activation	2	1,19	2,94E-02	RT1-Da, RT1-Db1
30.	GO:0071805~potassium ion transmembrane transport	5	2,99	2,95E-02	Alg10, Kcnh5, Kcnh7, Kcnq3, Slc9a7
31.	GO:0017157~regulation of exocytosis	3	1,79	3,09E-02	Rab27b, Rab3c, Stxbp5l
32.	GO:0035556~intracellular signal transduction	8	4,79	3,58E-02	Taok1, Wnk3, Dgkh, Mak, Map3k2, Myo9a, Plek
33.	GO:0048002~antigen processing and presentation of peptide antigen	2	1,19	3,67E-02	RT1-Ba, RT1-Bb
34.	GO:0045622~regulation of T-helper cell differentiation	2	1,19	3,67E-02	RT1-Da, RT1-Db1
35.	GO:0007166~cell surface receptor signaling pathway	5	2,99	3,70E-02	Cxcl13, Fcgr2b, Adgre1, Erb b4, Itgal
36.	GO:0050796~regulation of insulin secretion	3	1,79	3,90E-02	Alox5, Il1b, Rfx3
37.	GO:0006816~calcium ion transport	4	2,39	3,96E-02	Atp2a1, Ca cna2d1, Ca cna1e, Grin2a

38. GO:0007229~integrin-mediated signaling pathway	4	2,39	4,06E-02	Fyb1, Itgal, Itgb8, Plek
39. GO:0043382~positive regulation of memory T cell differentiation	2	1,19	4,38E-02	RT1-Da, RT1-Db1
40. GO:0006612~protein targeting to membrane	3	1,79	4,60E-02	Ncf1, Rtp3, Zdhhc21
41. GO:0050871~positive regulation of B cell activation	3	1,79	4,78E-02	Ighm, Ighm, Tlr9
42. GO:0009410~response to xenobiotic stimulus	9	5,38	4,81E-02	Acvr1c, Creb1, C3, Erbb4, Fzd3, Grin2a, Hspg2, Il1b, Slc1a2
43. GO:0006954~inflammatory response	7	4,19	4,92E-02	Cxcl13, Alox5, Ciita, C3, Il1b, Ncf1, Tlr9)
44. GO:0060078~regulation of postsynaptic membrane potential	3	1,79	4,96E-02	Gabbr2, Grin2a, Grm5

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