

Additional file 3. Differentially expressed genes in the choroid plexus after LPS challenge.

a) Up-regulated genes in the choroid plexus after LPS challenge. Differential expression analyses were performed by comparing the LPS-groups to the saline control group of matching genotype. Bold values indicate a significant up-regulation (*log₂ ratio >0.59, q<0.05). LPS, n=15. Saline, n=10

Gene ID	Symbol	Gene name	Log ₂ ratio	
			PRNP ^{+/+}	PRNP ^{Ter/Ter}
102187851	CXCL9	C-X-C motif chemokine ligand 9	4,61*	1,81*
100860873	CXCL10	C-X-C motif chemokine ligand 10	4,46*	3,24*
102174264	GBP6	Guanylate binding protein family member 6	3,15*	2,20*
100860781	SAA3	Serum amyloid A3	3,13*	3,14*
102188618	MT1A	Metallothionein-1A	3,01*	2,35*
102190797	RSAD2	Radical S-adenosyl methionine domain containing 2	2,89*	1,92*
102185230	IFI6	Interferon alpha inducible protein 6	2,77*	0,73*
102168687	IFIT1	Interferon-induced protein with tetratricopeptide repeats 1	2,42*	2,13*
102170076	SELP	Selectin P	2,37*	2,27*
102183943	CD163	Scavenger receptor cysteine-rich type 1 protein M130	2,19*	1,95*
106503920	APOL3	Apolipoprotein L3-like	2,16*	2,08*
102190722	OAS1	2'-5'-oligoadenylate synthase 1	2,10*	1,33*
102168428	SAA3	Serum amyloid A protein	2,07*	1,99*
102168968	IFIT3	Interferon induced protein with tetratricopeptide repeats 3	2,00*	1,73*
102185477	TGM2	Transglutaminase 2	1,90*	1,32*
102169982	ISG15	ISG15 ubiquitin-like modifier	1,81*	2,61*
102177056	CD14	CD14 molecule	1,57*	1,41*
102190983	OAS1L	2'-5'-oligoadenylate synthase 1-like	1,52*	1,77*
102170273	ICOSLG	Inducible T-cell 1ostimulatory ligand	1,50*	1,37*
102174491	LY6E	Lymphocyte antigen 6 complex, locus E	1,42*	1,23*
102188635	MX1	MX dynamin like GTPase 1	1,39*	1,89*
102180655	IFITM3	Interferon-induced transmembrane protein 3-like	1,27*	0,99*
102184389	MHCI	BOLA class I histocompatibility antigen, alpha chain BL3-6-like	1,26*	0,90*
102191085	COL6A1	Collagen type VI alpha 1 chain	1,04*	0,64*
102171079	COL4A1	Collagen type IV alpha 1 chain	0,98*	0,59*
102174427	RNF213	Ring finger protein 213	0,73*	0,79*
102191378	COL6A2	Collagen type VI alpha 2 chain	0,73*	0,68*
102173651	PLVAP	Plasmalemma vesicle associated protein	0,65*	0,61*
102170144	GBP	Guanylate-binding protein 1	2,63*	1,64
102189747	HERC6	HECT and RLD domain containing E3 ubiquitin protein ligase family member 6	2,59*	1,73
102176990	OAS3	2'-5'-oligoadenylate synthase 1/3	2,49*	1,55
102169450	IFIT2	Interferon induced protein with tetratricopeptide repeats 2	2,29*	1,57
102181449	PSMB9	Proteasome subunit beta 9	2,20*	1,22
102184087	LGALS9	Galectin 9	1,96*	1,16
102184922	GVIN1	Interferon-induced very large GTPase 1-like	1,92*	1,21
102173932	IFI203	Interferon-activable protein 203-like	1,88*	0,96
102180902	PSMB8	Proteasome subunit beta 8	1,81*	0,93
102180584	MHCI	BOLA class I histocompatibility antigen, alpha chain BL3-7-like	1,66*	0,47
102183942	CAPN6	Calpain 6	1,63*	0,07
100860825	CHI3L1	Chitinase 3 like 1	1,58*	1,46
102181173	TAP1	Transporter 1, ATP binding cassette subfamily B member	1,55*	1,14
102168630	VCAN	Versican	1,54*	1,47
102174541	IGFBP3	Insulin like growth factor binding protein 3	1,37*	0,88
102173335	TNFSF10	Tumor necrosis factor superfamily member 10	1,34*	0,89
102172487	CP	Ceruloplasmin (ferroxidase)	1,32*	0,34
102188739	SRGN	Serglycin	1,27*	1,02
102168722	ARHGAP26	Rho GTPase activating protein 26	1,26*	0,67

102174895	VCAM	Vascular cell adhesion protein 1	1,23*	0,94
102188814	MHCI	BOLA class I histocompatibility antigen, alpha chain BL3-7-like	1,23*	0,12
102171143	APOL3	Apolipoprotein L3	1,22*	1,20
102189585	SCARA5	Scavenger receptor class A member 5	1,10*	0,52
102191086	COCH	Cochlin	1,09*	-0,49
102177631	ADGRG6	Adhesion G protein-coupled receptor G6	1,05*	-0,34
102178827	TPM2	Tropomyosin 2 (beta)	1,04*	0,32
102181402	LCP1	Lymphocyte cytosolic protein 1	1,01*	0,89
100860812	IGFBP4	Insulin like growth factor binding protein 4	0,99*	0,28
102180712	DES	Desmin	0,97*	0,57
102191633	DKK3	Dickkopf WNT signaling pathway inhibitor 3	0,96*	-0,22
102172386	ADAMTS1	ADAM metalloproteinase with thrombospondin type 1 motif 1	0,95*	0,43
102182694	CXCL14	C-X-C motif chemokine ligand 14	0,93*	-0,09
102187830	COL17A1	Collagen type XVII alpha 1 chain	0,83*	-0,53
102180259	C7	Complement C7	0,82*	0,20
102169556	CXCL12	C-X-C motif chemokine ligand 12	0,81*	-0,09
102191486	ACTA2	Actin, alpha 2, smooth muscle, aorta	0,80*	0,30
102190641	MYLK	Myosin light chain kinase	0,78*	0,23
102185937	TAGLN	Transgelin	0,78*	0,37
102177315	FBLN1	Fibulin 1	0,77*	-0,02
102188376	FGL2	Fibrinogen like 2	0,75*	0,32
102172853	COL16A1	Collagen type XVI alpha 1 chain	0,74*	-0,03
102177484	C4	Complement C4	0,73*	0,08
102172761	ITGA1	Integrin subunit alpha 1	0,73*	0,06
102176966	ACTN1	Actinin alpha 1	0,71*	0,31
100860938	COL3A1	Collagen type III alpha 1 chain	0,69*	-0,14
102179435	TPM3	Tropomyosin 3	0,66*	0,29
100860940	COL1A2	Collagen type I alpha 2 chain	0,65*	0,01
102188835	C1R	Complement C1r	0,65*	0,22
102183179	GRN	Granulin	0,65*	0,54
102175326	PFN1	Profilin 1	0,63*	0,29
102180482	TPM4	Tropomyosin 4	0,62*	0,51
102171347	COL4A2	Collagen type IV alpha 2 chain	0,62*	0,22
102181355	PCOLCE	Procollagen C-endopeptidase enhancer	0,61*	-0,10
102169304	ENG	Endoglin	0,59*	0,24
102190143	KCTD12	Potassium channel tetramerization domain containing 12	0,59*	-0,02
102174322	FOLR3	Folate receptor 3	1,11	1,84*
102183788	DDX58	DEXD/H-box helicase 58	1,11	1,62*
100861005	SLC29A1	Solute carrier family 29 member 1	0,94	1,53*
102176743	UBA7	Ubiquitin like modifier activating enzyme 7	0,93	1,09*
102186813	C1QB	Complement C1q B chain	0,92	1,05*
102179622	DIRAS3	DIRAS family GTPase 3	0,85	0,95*
102175447	FKBP5	FK506 binding protein 5	0,48	0,79*
102177374	LGALS3BP	Galectin 3 binding protein	0,39	0,78*
102168267	B2M	Beta-2-microglobulin	0,58	0,68*

b) Down-regulated genes in the choroid plexus after LPS challenge. Differential expression analyses were performed by comparing the LPS-groups to the saline control group of matching genotype. Bold values indicate a true differential expression (*log₂ ratio <0.59, q<0.05). LPS, n=15. Saline, n=10

Gene ID	Symbol	Gene name	Log ₂ ratio LPS vs. saline	
			<i>PRNP</i> ^{+/+}	<i>PRNP</i> ^{Ter/Ter}
102190015	PK4	Pyruvate dehydrogenase kinase 4	-1,47*	-1,27*
102172168	GPR158	G protein-coupled receptor 158	-0,66*	-0,66*
102180778	RDH10	Retinol dehydrogenase 10 (all-trans)	-2,23*	-0,51
102187800	UBB	Ubiquitin B	-1,40*	0,30
102182855	TXNRD1	Thioredoxin reductase 1	-0,78*	-0,36
102169722	TGFB3	Transforming growth factor beta receptor 3	-0,77*	0,10
102175994	TCAIM	T-cell activation inhibitor, mitochondrial	-0,75*	-0,19
102172797	WNK1	WNK lysine deficient protein kinase 1	-0,69*	-0,22
102177581	CACNA1H	Voltage-dependent T-type calcium channel subunit alpha-1H	-0,67*	-0,38
102176607	SGK1	Serum/glucocorticoid regulated kinase 1	-0,67*	-0,23
102187066	PPFIBP2	PPFIA binding protein 2	-0,66*	-0,01
102183532	LRAT	Lecithin retinol acyltransferase	-0,63*	-0,34
102184027	RBP4	Retinol binding protein 4	-0,63*	-0,16
102189710	CLDN1	Claudin 1	-0,63*	-0,03
102184132	METAP1	Methionyl aminopeptidase 1	-0,62*	0,04
102176354	HP	Haptoglobin	-0,29	-3,39*
102178465	ZBTB16	Zinc finger and BTB domain containing 16	-1,56	-2,21*
102175527	CEMIP	Cell migration inducing hyaluronan binding protein	-0,06	-1,41*
102189939	ATP5I	ATP synthase, H+ transporting, mitochondrial Fo complex subunit E	0,10	-1,18*
106503375	C21H14orf132	Chromosome 21 C14orf132 homolog	-0,36	-0,82*
102183476	ZYG11B	Zyg-11 family member B, cell cycle regulator	-0,21	-0,73*
100860756	OGN	Osteoglycin	0,18	-0,71*
102191385	VWA5B1	Von Willebrand factor A domain containing 5B1	-0,16	-0,63*