

Supplementary Table 3. Shiny GO enrichment analysis showing the most significantly enriched functional categories from biological processes after LPS stimulation in (1) MIO-M1 cells and (2) primary RMG including human orthologue gene names of proteins clustering to respective pathways.

Enrichment FDR	Genes in list	Total genes	Functional Category	Genes
1) MIO-M1				
0.0001	6	471	Regulation of cell-cell adhesion	PDCD1LG2 CX3CL1 PODXL VCAM1 ICAM1 ICOSLG
0.0001	7	765	Regulation of cell adhesion	PDCD1LG2 CX3CL1 PODXL VCAM1 ICAM1 JAM2 ICOSLG
0.0001	6	465	Positive regulation of cell adhesion	PDCD1LG2 CX3CL1 PODXL VCAM1 ICAM1 ICOSLG
0.0001	12	3539	Immune system process	CX3CL1 ICOSLG PDCD1LG2 VCAM1 HLA-B ICAM1 FASN TUBB4B MT2A JAM2 EEF1A1 SDC2
0.0002	5	289	Cellular response to interferon-gamma	CX3CL1 ICAM1 MT2A VCAM1 HLA-B
0.0002	7	922	Cell-cell adhesion	PDCD1LG2 CX3CL1 PODXL VCAM1 ICAM1 JAM2 ICOSLG
0.0002	5	312	Response to interferon-gamma	CX3CL1 ICAM1 MT2A VCAM1 HLA-B
0.0003	2	5	Membrane to membrane docking	ICAM1 VCAM1
0.0004	4	178	Interferon-gamma-mediated signaling pathway	ICAM1 MT2A VCAM1 HLA-B
0.0009	3	73	Cellular extravasation	VCAM1 CX3CL1 ICAM1
0.0010	5	491	Leukocyte migration	CX3CL1 VCAM1 ICAM1 JAM2 SDC2
0.0010	7	1278	Cellular response to cytokine stimulus	CX3CL1 ICAM1 TUBA1B VCAM1 FASN MT2A HLA-B
0.0011	2	12	Establishment of endothelial intestinal barrier	ICAM1 FASN
0.0014	4	272	Positive regulation of leukocyte cell-cell adhesion	PDCD1LG2 VCAM1 ICAM1 ICOSLG
0.0014	7	1372	Response to cytokine	CX3CL1 ICAM1 TUBA1B VCAM1 FASN MT2A HLA-B
0.0014	9	2602	Immune response	CX3CL1 ICOSLG PDCD1LG2 HLA-B ICAM1 TUBB4B MT2A EEF1A1 VCAM1
0.0014	7	1416	Leukocyte activation	PDCD1LG2 VCAM1 CX3CL1 ICOSLG ICAM1 EEF1A1 TUBB4B
0.0018	4	304	Negative regulation of cell adhesion	PDCD1LG2 JAM2 PODXL CX3CL1
0.0021	7	1541	Cell adhesion	ICAM1 VCAM1 PDCD1LG2 CX3CL1 PODXL JAM2 ICOSLG
0.0021	7	1548	Biological adhesion	ICAM1 VCAM1 PDCD1LG2 CX3CL1 PODXL JAM2 ICOSLG
0.0024	7	1591	Cell activation	PDCD1LG2 VCAM1 CX3CL1 ICOSLG ICAM1 EEF1A1 TUBB4B
0.0025	4	363	Regulation of leukocyte cell-cell adhesion	PDCD1LG2 VCAM1 ICAM1 ICOSLG
0.0025	4	366	Response to lipopolysaccharide	PDCD1LG2 CX3CL1 ICAM1 VCAM1
0.0025	3	136	Positive regulation of T cell proliferation	PDCD1LG2 VCAM1 ICOSLG

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0.0025	4	360	Leukocyte proliferation	PDCD1LG2 VCAM1 CX3CL1 ICOSLG
0.0025	9	2938	Cellular response to organic substance	CX3CL1 PDCD1LG2 ICAM1 EEF1A1 TUBA1B VCAM1 FASN MT2A HLA-B
0.0027	5	718	Response to bacterium	PDCD1LG2 CX3CL1 ICAM1 MT2A VCAM1
0.0029	4	385	Response to molecule of bacterial origin	PDCD1LG2 CX3CL1 ICAM1 VCAM1
0.0032	4	399	Leukocyte cell-cell adhesion	PDCD1LG2 VCAM1 ICAM1 ICOSLG
2) Primary RMG				
6.07E-04	42	2602	Immune response	CD86 CD274 CD80 SEMA7A MX1 ICOSLG IFIH1 STAT1 GBP1 CXCL16 B2M IFIT1 ISG15 HLA-B HLA-A SLAMF7 OAS1 ICAM1 CD40 DDX58 IFIT3 IFIT5 PRNP CSF1 HLA-DRB1 SEMA4A HLA-DRA HLA-C TSPAN6 CD38 PJA2 CD68 GBP6 CD47 ICAM3 DNAJC3 TAPBP ITGA4 PLAU CD53 VCAM1 SAA1
7.27E-04	46	3539	Immune system process	CD38 OAS1 CD86 IFIT3 CD274 CD80 SEMA7A IFIT5 MX1 ICOSLG CXCL16 CSF1 IFIT1 ITGA4 VCAM1 DDX58 IFIH1 STAT1 GBP1 B2M SAA1 HCAR2 ISG15 HLA-DRB1 CD47 HLA-DRA HLA-B HLA-A SLAMF7 ICAM1 CD40 DNAJC3 TAPBP PRNP SEMA4A HLA-C PLEK TSPAN6 SDC4 PJA2 CD68 GBP6 ICAM3 PLAU CD53 JAM2
1.09E-02	40	2561	Response to external stimulus	OAS1 CD86 IFIT3 CD274 CD80 PLAU SEMA7A IFIT5 MX1 CXCL16 SAA1 IFIT1 SEMA4A CD47 TFPI DDX58 IFIH1 STAT1 SLIT3 CSF1 SLC1A3 ICAM1 CD40 DNAJC3 PLEK GBP1 NMUR2 EGFR NRG1 VCAM1 ABCA1 FOLR2 B2M ISG15 ITGA4 TSPAN6 CD68 GBP6 HLA-DRB1 VLDLR
3.99E-02	36	2062	Defense response	OAS1 IFIT3 SEMA7A IFIT5 MX1 IFIT1 CD47 DDX58 IFIH1 STAT1 GBP1 CXCL16 ISG15 HLA-A SLAMF7 ICAM1 CD40 DNAJC3 EGFR VCAM1 SAA1 CSF1 S1PR3 TSPAN6 PJA2 CD68 GBP6 HLA-DRB1 ICOSLG FOLR2 ICAM3 LGALS3BP B2M HLA-DRA HLA-C HLA-B
1.31E-01	49	4507	Response to stress	PLEK OAS1 IFIT3 PLAU SEMA7A IFIT5 MX1 PRNP IFIT1 CD47 TFPI DDX58 TMEM33 IFIH1 STAT1 GBP1 EGFR CXCL16 CSF1 ISG15 HLA-A CD38 SLAMF7 SLC1A3 ICAM1 CD40 DNAJC3 SDC4 NMUR2 VCAM1 VASN SAA1 S1PR3 ABCA1 TSPAN6 PJA2 CD68 MGARP GBP6 HLA-DRB1 ICOSLG FOLR2 ICAM3 LGALS3BP NRG1 B2M HLA-DRA HLA-C HLA-B
1.50E-01	30	1372	Response to cytokine	STAT1 GBP1 CD274 CXCL16 CSF1 IFIT1 ISG15 TFPI CD38 ICAM1 CD40 ITGA4 IFIT3 VCAM1 DDX58 IFIH1 SLIT3 CD47 GBP6 OAS1 CD86 CD80 MX1 B2M SAA1 HLA-DRB1 HLA-DRA HLA-C HLA-B HLA-A

Enrichment FDR	Genes in list	Total genes	Functional Category	Genes
1.08E+00	28	1242	Innate immune response	MX1 IFIH1 STAT1 GBP1 CXCL16 IFIT1 ISG15 HLA-A SLAMF7 OAS1 ICAM1 CD40 DDX58 IFIT3 IFIT5 CSF1 TSPAN6 PJA2 GBP6 CD47 ICAM3 VCAM1 B2M SAA1 HLA-DRB1 HLA-DRA HLA-C HLA-B
3.90E+00	41	3287	Cell surface receptor signaling pathway	TSPAN6 CD82 CD86 CD274 CD80 SEMA7A CD53 EGFR NRG1 ICOSLG VASN PRNP BTC SEMA4A ICAM1 STAT1 PLEK CSF1 CD40 ITGA4 VLDLR ABCA1 S1PR3 CD38 GBP1 SLIT3 CD47 ICAM3 OAS1 IFIT3 MX1 VCAM1 B2M SAA1 IFIT1 ISG15 HLA-DRB1 HLA-DRA HLA-C HLA-B HLA-A
1.15E+01	32	1909	Regulation of immune system process	CD38 CD86 CD274 CD80 SEMA7A ICOSLG CSF1 IFIH1 VCAM1 B2M HCAR2 CD47 HLA-B HLA-A CD40 DDX58 ITGA4 PRNP IFIT1 ISG15 STAT1 TSPAN6 ICAM1 GBP1 SDC4 PJA2 CD68 HLA-DRB1 SLAMF7 ICAM3 HLA-DRA HLA-C
1.39E+01	28	1392	Immune effector process	OAS1 IFIT3 SEMA7A IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 B2M HLA-B HLA-A ICAM1 CD40 DNAJC3 GBP1 ISG15 SEMA4A CD47 TSPAN6 HLA-DRB1 SLAMF7 CD86 CD80 PLAU CD68 CD53 HLA-C
1.49E+01	25	1054	Response to external biotic stimulus	OAS1 CD86 IFIT3 CD274 CD80 IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 TFPI ICAM1 CD40 DNAJC3 GBP1 VCAM1 ABCA1 B2M ISG15 CD47 TSPAN6 CD68 GBP6 HLA-DRB1
1.49E+01	25	1052	Response to other organism	OAS1 CD86 IFIT3 CD274 CD80 IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 TFPI ICAM1 CD40 DNAJC3 GBP1 VCAM1 ABCA1 B2M ISG15 CD47 TSPAN6 CD68 GBP6 HLA-DRB1
2.67E+01	25	1085	Response to biotic stimulus	OAS1 CD86 IFIT3 CD274 CD80 IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 TFPI ICAM1 CD40 DNAJC3 GBP1 VCAM1 ABCA1 B2M ISG15 CD47 TSPAN6 CD68 GBP6 HLA-DRB1
1.31E+02	37	2938	Cellular response to organic substance	CD86 CD274 CD80 VASN PRNP ICAM1 TMEM33 STAT1 GBP1 EGFR CSF1 IFIT1 TFPI CD40 ITGA4 IFIT3 VCAM1 ABCA1 FOLR2 SLIT3 DDX58 IFIH1 CD47 CD68 MGARP GBP6 HLA-DRB1 OAS1 DNAJC3 MX1 B2M SAA1 ISG15 HLA-DRA HLA-C HLA-B HLA-A
1.58E+02	26	1301	Positive regulation of immune system process	CD38 CD86 CD274 CD80 SEMA7A ICOSLG CSF1 IFIH1 VCAM1 B2M HCAR2 CD47 HLA-B CD40 DDX58 ITGA4 PRNP ISG15 TSPAN6 ICAM1 STAT1 GBP1 PJA2 ICAM3 HLA-DRB1 HLA-DRA
1.94E+02	40	3547	Response to organic substance	CD86 CD274 CD80 VASN PRNP ICAM1 TMEM33 STAT1 GBP1 EGFR CXCL16 CSF1 IFIT1 ISG15 TFPI CD38 CD40 DNAJC3 DDX58 ITGA4 IFIT3 LUM VCAM1 ABCA1 FOLR2

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2.14E+01	26	1325	Regulation of immune response	B2M SLIT3 IFIH1 CD47 CD68 MGARP GBP6 HLA-DRB1 OAS1 MX1 SAA1 HLA-DRA HLA-C HLA-B HLA-A SEMA7A ICOSLG IFIH1 B2M HLA-B HLA-A CD40 DDX58 PRNP TSPAN6 CD38 GBP1 CD274 PJA2 CD47 CD86 CD80 SLAMF7 ICAM3 ICAM1 ITGA4 STAT1 VCAM1 HLA-DRB1 HLA-DRA HLA-C
5.30E+01	15	312	Response to interferon-gamma	STAT1 GBP1 CXCL16 ICAM1 CD40 GBP6 CD47 OAS1 VCAM1 B2M HLA-DRB1 HLA-DRA HLA-C HLA-B HLA-A
7.51E+02	25	1278	Cellular response to cytokine stimulus	STAT1 GBP1 CSF1 IFIT1 TFPI ICAM1 CD40 ITGA4 IFIT3 VCAM1 SLIT3 CD47 GBP6 OAS1 CD86 CD80 MX1 B2M SAA1 ISG15 HLA-DRB1 HLA-DRA HLA-C HLA-B HLA-A
1.07E+03	45	4820	Regulation of response to stimulus	TSPAN6 SLC20A1 PLAU SEMA7A ICOSLG VASN PRNP SEMA4A CD47 PJA2 TFPI ICAM1 TMEM33 IFIH1 PLEK EGFR B2M SAA1 CSF1 HLA-B HLA-A CD40 DNAJC3 DDX58 NRG1 CXCL16 LRPAP1 BTC IFIT1 STAT1 CD38 GBP1 CD274 IFIT5 ABCA1 SLIT3 HLA-DRB1 CD86 CD80 SLAMF7 ICAM3 ITGA4 VCAM1 HLA-DRA HLA-C
5.05E+03	38	3536	Cellular response to chemical stimulus	CD86 CD274 CD80 CXCL16 VASN PRNP SAA1 ICAM1 TMEM33 STAT1 GBP1 EGFR CSF1 IFIT1 TFPI CD40 ITGA4 IFIT3 VCAM1 ABCA1 FOLR2 B2M SLIT3 DDX58 IFIH1 CD47 CD68 MGARP GBP6 HLA-DRB1 OAS1 DNAJC3 MX1 ISG15 HLA-DRA HLA-C HLA-B HLA-A
9.78E+03	21	950	Cytokine-mediated signaling pathway	STAT1 CSF1 SLIT3 OAS1 ICAM1 CD40 CD86 GBP1 IFIT3 CD80 MX1 VCAM1 B2M SAA1 IFIT1 ISG15 HLA-DRB1 HLA-DRA HLA-C HLA-B HLA-A
1.08E+04	26	1591	Cell activation	PLEK CD38 CD86 CD274 CD80 ITGA4 VCAM1 CD47 CD40 EGFR ICOSLG B2M PRNP SEMA4A ICAM1 SDC4 PJA2 HLA-DRB1 SLAMF7 SAA1 CSF1 DNAJC3 PLAU CD68 CD53 HLA-C
1.51E+03	13	263	Defense response to virus	OAS1 IFIT3 IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 CD40 DNAJC3 GBP1 ISG15 TSPAN6
4.76E+04	13	289	Cellular response to interferon-gamma	STAT1 GBP1 ICAM1 GBP6 CD47 OAS1 VCAM1 B2M HLA- DRB1 HLA-DRA HLA-C HLA-B HLA-A
6.84E+04	11	178	Interferon-gamma-mediated signaling pathway	STAT1 OAS1 ICAM1 GBP1 VCAM1 B2M HLA-DRB1 HLA- DRA HLA-C HLA-B HLA-A
2.90E+05	23	1416	Leukocyte activation	CD38 CD86 CD274 CD80 ITGA4 VCAM1 CD47 CD40 ICOSLG B2M PRNP SEMA4A ICAM1 SDC4 PJA2 HLA- DRB1 SLAMF7 CSF1 DNAJC3 PLAU CD68 CD53 HLA-C

Enrichment FDR	Genes in list	Total genes	Functional Category	Genes
3.83E+05	19	925	Cytokine production	SEMA7A DDX58 IFIH1 STAT1 CD274 B2M SAA1 CD40 LUM PRNP S1PR3 TSPAN6 GBP1 ABCA1 ISG15 CD47 HLA-DRB1 CD86 CD80
5.49E+05	13	356	Response to virus	OAS1 IFIT3 IFIT5 MX1 IFIT1 DDX58 IFIH1 STAT1 CD40 DNAJC3 GBP1 ISG15 TSPAN6
7.73E+05	18	852	Regulation of cytokine production	SEMA7A DDX58 IFIH1 STAT1 CD274 B2M SAA1 CD40 LUM PRNP S1PR3 TSPAN6 GBP1 ISG15 CD47 HLA-DRB1 CD86 CD80