**Table 1.** Panel of genes analysed in the small intestine

|  |  |  |
| --- | --- | --- |
| Group | Gene | Accession |
| Nutrient transporters | *SLC15A1* | NM\_214347.1 |
| *SLC5A1* | NM\_001164021.1 |
| *SLC2A1* | XM\_003482115.1 |
| *SLC2A2* | NM\_001097417.1 |
| *SLC2A5* | XM\_021095282.1 |
| *SLC2A7* | XM\_003127552.3 |
| *SLC2A8* | XM\_003480608.1 |
| *FABP2* | NM\_001031780.1 |
| *SLC16A10* | XM\_021091212.1 |
| *SLC6A19* | XM\_003359855 |
| *SLC7A1* | NM\_001012613.1 |
| *SLC5A8* | NM\_001291414 |
| *SLC16A1* | NM\_001128445.1 |
| Appetite regulators | *CCK* | NM\_214237.2 |
| *GLP2R* | NM\_001246266.1 |
| *GCG* | NM\_214324 |
| Digestive enzymes | *SI* | XM\_021069748 |
| *CNDP1* | NM\_001290324.1 |
| Inflammatory markers | *NFKB1* | NM\_001048232.1 |
| *CXCL8* | NM\_213867.1 |
| *TGFB1* | NM\_214015.2 |
| *IFNG* | NM\_213948.1 |
| *IL1A* | NM\_214029.1 |
| Tight junctions | *TJP1* | XM\_005659811.1 |
| *OCLN* | NM\_001163647.2 |
| *CLDN3* | NM\_001160075.1 |
| *CLDN5* | NM\_001161636.1 |
| Toll-like receptors | *TLR2* | NM\_213761.1 |
| *TLR4* | NM\_001113039.2 |
| *TLR5* | NM\_001348771.1 |
| Mucins | *MUC1* | XM\_013997019 |
| *MUC2* | XM\_013989745 |
| Reference genes | *ACTB* | XM\_003124280.4 |
| *B2M* | NM\_213978.1 |
| *GAPDH* | NM\_001206359.1 |
| *HPRT* | NM\_001032376.2 |
| *PPIA* | NM\_214353.1 |

SLC15A1, peptide transporter 1; SLC5A1, sodium glucose cotransporter; SLC2A1, glucose transporter 1; SLC2A2, glucose transporter 2; SLC2A5, glucose transporter 5; SLC2A7, glucose transporter 7; SLC2A8, glucose transporter 8; FABP2, fatty acid binding protein 2; CD36, cluster of differentiation; SLC16A10, aromatic amino acid transporter; SLC6A19, neutral amino acid transporter; SLC7A1, cationic amino acid transporter; SLC5A8, sodium-coupled monocarboxylate transporter; SLC16A1, monocarboxylate transporter 1; CCK, cholecystokinin; GLP2R, glucagon-like peptide 2 receptor; GCG, glucagon; SI, sucrase isomaltase; CNDP1, carnosine dipeptidase; NFKB1, nuclear factor kappa B subunit 1; CXCL8, C-X-C motif chemokine ligand 8; TGFB1, transforming growth factor beta 1; IFNG, interferon gamma; IL1A, interleukin 1A; TJP1, tight junction protein 1; OCLN, occludin; CLDN3, claudin 3; CLDN5, claudin 5; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR5, toll-like receptor 5; MUC1, mucin 1; MUC2, mucin 2; ACTB, actin beta; B2M, beta-2-microglobulin; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; HPRT, hypoxanthine phosphoribosyltransferase 1; PPIA, peptidylprolyl isomerase A

**Table 2.** Panel of genes analysed in the colon

|  |  |  |
| --- | --- | --- |
| Group | Genes | Accession |
| Cytokines | *CXCL8* | NM\_213867.1 |
| *IL1A* | NM\_214029.1 |
| *IL1B* | NM\_214055.1 |
| *IFNG* | NM\_213948.1 |
| Enzymes | *AOAH* | XM\_021079244.1 |
| *CASP1* | NM\_214162.1 |
| *PMRT5* | NM\_001160093.1 |
| *TRAF2* | XM\_005652719.1 |
| *TRAF3* | XM\_005666443.2 |
| *TRAF6* | NM\_001105286.1 |
| Kinase | *CHUK* | NM\_001114279.1 |
| *PRKAA1* | NM\_001167633.1 |
| *MAPK1* | NM\_001198922.1 |
| *MAP3K7* | NM\_001114280.1 |
| *RIPK2* | XM\_021089139.1 |
| *MTOR* | XM\_003127584.6 |
| *SYK* | NM\_001104952.1 |
| *JAK2* | NM\_214113.1 |
| Barrier defence | *OCLN* | NM\_001163647.2 |
| *MUC1* | XM\_021089728.1 |
| *MUC2* | XM\_021082584.1 |
| *MUC4* | NM\_001206344.2 |
| Pathogen recognition receptors | *NOD2* | NM\_001105295.1 |
| *TLR1* | NM\_001031775.1 |
| *TLR2* | NM\_213761.1 |
| *TLR4* | NM\_001113039.2 |
| *TLR6* | NM\_213760.1 |
| *TLR7* | NM\_001097434.1 |
| *TLR8* | NM\_214187.1 |
| *MAVS* | NM\_001097429.1 |
| Ligand dependent nuclear receptor | *PPARG* | NM\_214379.1 |
| Suppresser of cytokine signalling | *SOCS1* | NM\_001204768.1 |
| *SOCS3* | NM\_001123196.1 |
| Matrix metalloproteinases | *MMP2* | NM\_214192.2 |
| *MMP3* | NM\_001166308.1 |
| *MMP9* | NM\_001038004.1 |
| Transcription regulation | *JUN* | NM\_213880.1 |
| *IRF3* | NM\_213770.1 |
| *MYD88* | NM\_001099923.1 |
| *NFKB1* | NM\_001048232.1 |
| *PPARGC1A* | NM\_213963.2 |
| *STAT2* | NM\_213889.1 |
| *STAT3* | NM\_001044580.1 |
| *TANK* | XM\_003359533.4 |
| *TIRAP* | XM\_003130060.4 |
| *TRAM1* | XM\_001924618.6 |
| Transmembrane receptor | *CD14* | NM\_001097445.2 |
| *CLEC7A* | NM\_001145866.1 |
| *DDX58* | NM\_213804.2 |
| *TICAM1* | NM\_001315738.1 |
| Nutrient transporters | *SLC16A1* | NM\_001128445.1 |
| *SLC16A7* | XM\_003126337.5 |
| Reference genes | *ACTB* | XM\_003124280. |
| *B2M* | NM\_213978.1 |
| *GAPDH* | NM\_001206359.1 |
| *G6PD* | XM\_021080744.1 |
| *HPRT* | NM\_001032376.2 |
| *PPIA* | NM\_214353.1 |
| *RPL19* | XM\_003131509.4 |
| *TBP* | XM\_021085493.1 |

CXCL8, C-X-C motif chemokine ligand 8; IL1A, interleukin 1A; IL1B, interleukin 1B; IFNG, interferon gamma; AOAH, acyloxyacyl hydrolase; CASP1, caspase-1; PRMT5, protein arginine methyltransferase 5; TRAF2, TNF receptor associated factor 2; TRAF3, TNF receptor associated factor 3; TRAF6, TNF receptor associated factor 6; CHUK, component of inhibitor of nuclear factor kappa B kinase complex; PRKAA1, protein kinase AMP-activated catalytic subunit alpha 1; MAPK1, mitogen activate protein kinase 1; MAP3K7, mitogen-activated protein kinase kinase kinase 7; RIPK2, receptor interacting serine/threonine kinase 2; MTOR, mechanistic target of rapamycin kinase; SYK, spleen associated tyrosine kinase; JAK2, janus kinase 2; OCLN, occludin; MUC1, mucin 1; MUC2, mucin 2; MUC4, mucin 4; NOD2, nucleotide binding oligomerization domain containing 2; TLR1, toll-like receptor 1; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR6, toll-like receptor 6; TLR7, toll-like receptor7; TLR8, toll-like receptor 8; MAVS, mitochondrial antiviral signalling protein; PPARG, peroxisome proliferator activated receptor gamma; SOCS1, suppressor of cytokine signalling 1; SOCS3, suppressor of cytokine signalling 3; MMP2, matrix metalloproteinase 2; MMP3, matrix metalloproteinase 3; MMP9, matrix metalloproteinase 9; JUN, AP-1 transcription factor subunit; IRF3, interferon regulatory factor 3; MYD88, MYD88 innate immune signal transduction adaptor; NFKB1, nuclear factor kappa B subunit 1; PPARGC1A, PPARG coactivator 1 alpha; STAT2, signal transducer and activator of transcription 2; STAT3, signal transducer and activator of transcription 3; TANK, TRAF family member associated NFKB activator; TIRAP, TIR domain containing adaptor protein; TRAM1, translocation associated membrane protein 1; CD14, CD14 molecule; CLEC7A, C-type lectin domain containing 7A; DDX58, DExD/H-box helicase 58; TICAM1, toll like receptor adaptor molecule 1; SLC16A1, monocarboxylate transporter 1; SLC16A7, monocarboxylate transporter 7; ACTB, actin beta; B2M, beta-2-microglobulin; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; G6PD, glucose-6-phosphate dehydrogenase; HPRT, hypoxanthine phosphoribosyltransferase 1; PPIA, peptidylprolyl isomerase A, RPL19, ribosomal protein L19; TBP, TATA-box binding protein.

**Table 3.** Oligonucleotide sequences of forward and reverse primers used for qPCR of bacterial 16s rRNA.

|  |  |  |  |
| --- | --- | --- | --- |
| Target bacteria | Forward and reverse primers (5′-3′) | Tm | Amplicon size (bp) |
| Total bacteria | F: GTGCCAGCMGCCGCGGTAA  R: GACTACCAGGGTATCTAAT | 64.2  52.4 | 291 |
| *Enterobacteriaceae* | F: ATGGCTGTCGTCAGCTCGT  R:CCTACTTCTTTTGCAACCCACTC | 58.8  60.6 | 385 |
| *Lactobacillus spp.* | F:GAGGCAGCAGTAGGGAATCTTC  R:CCAGCGTTGCCACCTACGTA | 60.5  62.5 | 206 |
| *Bifidobacterium spp.* | F: CGCGTCYGGTGTGAAAG  R:CCCCACATCCAGCATCCA | 62.5  59.0 | 244 |

Tm, melting temperature; bp, base pairs

**Table 4** Effect of laminarin on gene expression in the duodenum (Least-square means with their standard errors)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Laminarin inclusion level (ppm) | |  |  |
| Group | Gene | 0 | 300 | SEM | P value |
| Nutrient transporters | *SLC15A1* | 3936.03 | 4178.95 | 397.22 | 0.672 |
| *SLC5A1* | 11917.91 | 9373.51 | 1518.66 | 0.256 |
| *SLC2A1* | 340.44 | 411.13 | 38.56 | 0.216 |
| *SLC2A2* | 3895.47 | 4155.05 | 449.54 | 0.689 |
| *SLC2A5* | 979.44 | 981.80 | 88.81 | 0.985 |
| *SLC2A7* | 508.99 | 538.29 | 84.16 | 0.809 |
| *SLC2A8* | 226.76 | 408.87 | 51.06 | 0.024 |
| *FABP2* | 64101.33 | 44606.00 | 10051.66 | 0.192 |
| *SLC16A10* | 649.47 | 460.69 | 68.26 | 0.071 |
| *SLC6A19* | 2623.95 | 3045.27 | 203.04 | 0.164 |
| *SLC7A1* | 157.24 | 163.34 | 22.45 | 0.850 |
| *SLC5A8* | 3416.06 | 3372.55 | 225.40 | 0.893 |
| *SLC16A1* | 2246.59 | 2574.71 | 171.36 | 0.197 |
| Appetite regulators | *CCK* | 825.90 | 1068.37 | 109.93 | 0.141 |
| *GLP2R* | 157.09 | 139.14 | 7.25 | 0.102 |
| *GCG* | 723.21 | 134.95 | 254.12 | 0.124 |
| Digestive enzymes | *SI* | 23195.53 | 18536.01 | 3078.96 | 0.303 |
| *CNDP1* | 220.76 | 183.00 | 54.28 | 0.630 |
| Inflammatory markers | *NFKB1* | 561.69 | 492.13 | 19.45 | 0.024 |
| *CXCL8* | 1946.58 | 1797.93 | 252.26 | 0.683 |
| *TGFB1* | 119.51 | 99.54 | 6.34 | 0.043 |
| *IFNG* | 110.95 | 93.50 | 18.83 | 0.523 |
| *IL1A* | 68.22 | 66.59 | 9.61 | 0.906 |
| Tight junctions | *TJP1* | 1087.48 | 913.60 | 33.78 | 0.003 |
| *OCLN* | 2290.33 | 2028.78 | 139.96 | 0.208 |
| *CLDN3* | 2284.64 | 2220.61 | 90.93 | 0.626 |
| *CLDN5* | 65.53 | 52.68 | 3.74 | 0.029 |
| Toll-like receptors | *TLR2* | 141.18 | 117.00 | 22.45 | 0.459 |
| *TLR4* | 181.46 | 145.02 | 16.66 | 0.144 |
| *TLR5* | 112.00 | 103.50 | 12.37 | 0.635 |
| Mucins | *MUC1* | 47.85 | 41.22 | 7.05 | 0.516 |
| *MUC2* | 6862.69 | 9984.89 | 2304.67 | 0.354 |

SLC15A1, peptide transporter 1; SLC5A1, sodium glucose co-transporter; SLC2A1, glucose transporter 1; SLC2A2, glucose transporter 2, SLC2A5, glucose transporter 5; SLC2A7, glucose transporter 7, SLC2A8, glucose transporter 8; FABP2, fatty acid binding protein 2; SLC16A10, aromatic amino acid transporter; SLC6A19, neutral amino acid transporter; SLC7A1, cationic amino acid transporter; SLC5A8, sodium-coupled monocarboxylate transporter; SLC16A1, monocarboxylate transporter 1; CCK, cholecystokinin; GLP2R, glucagon-like peptide 2 receptor; GCG, glucagon; SI, sucrase isomaltase; CNDP1, carnosine dipeptidase 1; NFKB1, nuclear factor kappa B subunit 1; CXCL8, C-X-C motif chemokine ligand 8; TGFB1, transforming growth factor beta 1; IFNG, interferon gamma; IL1A, interleukin 1A; TJP1, tight junction protein 1; OCLN, occludin; CLDN3, claudin 3; CLDN5, claudin 5; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR5, toll-like receptor 5; MUC1, mucin 1; MUC2, mucin 2

**Table 5** Effect of laminarin on gene expression in the jejunum (Least-square means with their standard errors)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Laminarin inclusion level (ppm) | |  |  |
| Group | Gene | 0 | 300 | SEM | P value |
| Nutrient transporters | *SLC15A1* | 1047.49 | 2798.42 | 545.05 | 0.041 |
| *SLC5A1* | 6842.81 | 11505.60 | 2072.93 | 0.136 |
| *SLC2A1* | 208.46 | 208.75 | 11.46 | 0.986 |
| *SLC2A2* | 940.21 | 2527.69 | 515.41 | 0.049 |
| *SLC2A5* | 204.77 | 404.00 | 69.9 | 0.065 |
| *SLC2A7* | 99.26 | 247.27 | 45.89 | 0.040 |
| *SLC2A8* | 57.76 | 46.17 | 4.63 | 0.101 |
| *FABP2* | 9854.47 | 28613.82 | 5521.06 | 0.032 |
| *SLC16A10* | 540.37 | 650.94 | 53.06 | 0.165 |
| *SLC6A19* | 1195.83 | 2171.72 | 318.73 | 0.050 |
| *SLC7A1* | 442.35 | 324.29 | 52.18 | 0.134 |
| *SLC5A8* | 1464.61 | 2049.13 | 339.64 | 0.246 |
| *SLC16A1* | 1085.41 | 1074.12 | 65.28 | 0.905 |
| Appetite regulators | *CCK* | 160.90 | 174.02 | 23.08 | 0.694 |
| *GLP2R* | 64.37 | 99.08 | 13.20 | 0.086 |
| *GCG* | 1931.52 | 2819.25 | 478.62 | 0.213 |
| Digestive enzymes | *SI* | 17468.46 | 32966.11 | 6330.64 | 0.107 |
| *CNDP1* | 138.19 | 212.00 | 34.65 | 0.156 |
| Inflammatory markers | *NFKB1* | 845.62 | 772.72 | 39.0 | 0.209 |
| *CXCL8* | 719.42 | 867.28 | 182.34 | 0.576 |
| *TGFB1* | 176.75 | 156.64 | 12.02 | 0.258 |
| *IFNG* | 94.49 | 180.38 | 34.64 | 0.103 |
| *IL1A* | 63.42 | 65.61 | 5.29 | 0.775 |
| Tight junctions | *TJP1* | 1435.26 | 1390.37 | 47.01 | 0.512 |
| *OCLN* | 882.62 | 1869.66 | 339.88 | 0.061 |
| *CLDN3* | 803.60 | 1555.57 | 301.25 | 0.101 |
| *CLDN5* | 52.29 | 65.98 | 7.33 | 0.210 |
| Toll-like receptors | *TLR2* | 615.06 | 636.24 | 100.74 | 0.884 |
| *TLR4* | 177.80 | 171.92 | 12.20 | 0.739 |
| *TLR5* | 70.32 | 113.30 | 15.33 | 0.069 |
| Mucins | *MUC1* | 24.36 | 23.15 | 1.82 | 0.648 |
| *MUC2* | 4748.24 | 5082.37 | 993.03 | 0.816 |

SLC15A1, peptide transporter 1; SLC5A1, sodium glucose co-transporter; SLC2A1, glucose transporter 1; SLC2A2, glucose transporter 2, SLC2A5, glucose transporter 5; SLC2A7, glucose transporter 7, SLC2A8, glucose transporter 8; FABP2, fatty acid binding protein 2; SLC16A10, aromatic amino acid transporter; SLC6A19, neutral amino acid transporter; SLC7A1, cationic amino acid transporter; SLC5A8, sodium-coupled monocarboxylate transporter; SLC16A1, monocarboxylate transporter 1; CCK, cholecystokinin; GLP2R, glucagon-like peptide 2 receptor; GCG, glucagon; SI, sucrase isomaltase; CNDP1, carnosine dipeptidase 1; NFKB1, nuclear factor kappa B subunit 1; CXCL8, C-X-C motif chemokine ligand 8; TGFB1, transforming growth factor beta 1; IFNG, interferon gamma; IL1A, interleukin 1A; TJP1, tight junction protein 1; OCLN, occludin; CLDN3, claudin 3; CLDN5, claudin 5; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR5, toll-like receptor 5; MUC1, mucin 1; MUC2, mucin 2

**Table 6** Effect of laminarin on gene expression in the ileum (Least-square means with their standard errors)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Laminarin inclusion level (ppm) | |  |  |
| Group | Gene | 0 | 300 | SEM | P value |
| Nutrient transporters | *SLC15A1* | 2294.29 | 2056.33 | 341.51 | 0.629 |
| *SLC5A1* | 14956.02 | 9691.39 | 2061.20 | 0.090 |
| *SLC2A1* | 149.51 | 165.61 | 12.74 | 0.385 |
| *SLC2A2* | 1872.01 | 1422.61 | 268.18 | 0.253 |
| *SLC2A5* | 506.90 | 399.33 | 74.11 | 0.320 |
| *SLC2A7* | 204.19 | 181.62 | 35.29 | 0.657 |
| *SLC2A8* | 24.97 | 29.05 | 2.11 | 0.189 |
| *FABP2* | 13068.53 | 9884.87 | 1966.90 | 0.269 |
| *SLC16A10* | 786.41 | 602.77 | 94.04 | 0.186 |
| *SLC6A19* | 2650.79 | 1814.40 | 275.94 | 0.048 |
| *SLC7A1* | 89.14 | 149.35 | 21.71 | 0.068 |
| *SLC5A8* | 2633.70 | 1806.30 | 229.07 | 0.021 |
| *SLC16A1* | 1021.74 | 941.03 | 63.72 | 0.384 |
| Appetite regulators | *CCK* | 26.63 | 54.20 | 7.38 | 0.018 |
| *GLP2R* | 101.05 | 80.06 | 13.23 | 0.279 |
| *GCG* | 4187.67 | 3042.86 | 499.40 | 0.125 |
| Digestive enzymes | *SI* | 40234.54 | 29253.20 | 5247.28 | 0.158 |
| *CNDP1* | 172.39 | 127.14 | 20.45 | 0.137 |
| Inflammatory markers | *NFKB1* | 544.31 | 562.15 | 24.06 | 0.607 |
| *CXCL8* | 1161.11 | 791.14 | 146.55 | 0.093 |
| *TGFB1* | 83.44 | 108.87 | 10.85 | 0.117 |
| *IFNG* | 140.51 | 103.77 | 15.26 | 0.108 |
| *IL1A* | 48.17 | 39.77 | 5.07 | 0.258 |
| Tight junctions | *TJP1* | 1159.50 | 958.94 | 60.00 | 0.031 |
| *OCLN* | 1851.99 | 1352.35 | 190.07 | 0.082 |
| *CLDN3* | 1899.47 | 1305.23 | 189.50 | 0.041 |
| *CLDN5* | 66.49 | 55.16 | 7.02 | 0.271 |
| Toll-like receptors | *TLR2* | 938.68 | 644.92 | 96.00 | 0.046 |
| *TLR4* | 134.28 | 120.04 | 12.90 | 0.447 |
| *TLR5* | 144.46 | 105.95 | 15.55 | 0.099 |
| Mucins | *MUC1* | 42.25 | 23.19 | 5.01 | 0.016 |
| *MUC2* | 8246.34 | 5401.73 | 566.08 | 0.003 |

SLC15A1, peptide transporter 1; SLC5A1, sodium glucose co-transporter; SLC2A1, glucose transporter 1; SLC2A2, glucose transporter 2, SLC2A5, glucose transporter 5; SLC2A7, glucose transporter 7, SLC2A8, glucose transporter 8; FABP2, fatty acid binding protein 2; SLC16A10, aromatic amino acid transporter; SLC6A19, neutral amino acid transporter; SLC7A1, cationic amino acid transporter; SLC5A8, sodium-coupled monocarboxylate transporter; SLC16A1, monocarboxylate transporter 1; CCK, cholecystokinin; GLP2R, glucagon-like peptide 2 receptor; GCG, glucagon; SI, sucrase isomaltase; CNDP1, carnosine dipeptidase 1; NFKB1, nuclear factor kappa B subunit 1; CXCL8, C-X-C motif chemokine ligand 8; TGFB1, transforming growth factor beta 1; IFNG, interferon gamma; IL1A, interleukin 1A; TJP1, tight junction protein 1; OCLN, occludin; CLDN3, claudin 3; CLDN5, claudin 5; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR5, toll-like receptor 5; MUC1, mucin 1; MUC2, mucin 2

**Table 7** Effect of laminarin on gene expression in the colon (Least-square means with their standard errors)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Laminarin inclusion level (ppm) | |  |  |
| Group | Gene | 0 | 300 | SEM | P value |
| Inflammatory markers | *NFKB1* | 317.40 | 310.05 | 13.17 | 0.699 |
| *CXCL8* | 823.45 | 728.47 | 107.82 | 0.543 |
| *IL1A* | 303.97 | 261.50 | 31.03 | 0.349 |
| *IL1B* | 90.05 | 80.58 | 16.88 | 0.697 |
| *IFNG* | 60.87 | 54.43 | 8.44 | 0.598 |
| Barrier defence | *OCLN* | 1272.24 | 1316.80 | 91.79 | 0.736 |
| *MUC1* | 1246.01 | 1305.23 | 165.72 | 0.804 |
| *MUC2* | 5322.72 | 5764.99 | 559.16 | 0.584 |
| *MUC4* | 338.75 | 346.05 | 31.10 | 0.871 |
| Toll like receptors | *TLR1* | 261.14 | 271.94 | 26.83 | 0.780 |
| *TLR2* | 755.79 | 822.98 | 98.12 | 0.635 |
| *TLR4* | 231.74 | 229.46 | 15.38 | 0.918 |
| *TLR6* | 247.34 | 276.46 | 25.1 | 0.425 |
| Ligand dependent nuclear receptor | *PPARG* | 1546.10 | 1773.47 | 73.37 | 0.046 |
| Suppressor of cytokine signalling | *SOCS1* | 327.43 | 272.03 | 36.28 | 0.298 |
| *SOCS3* | 670.32 | 615.77 | 73.32 | 0.607 |
| Matrix metalloproteinases | *MMP2* | 550.04 | 524.71 | 43.35 | 0.685 |
| *MMP3* | 221.68 | 216.57 | 38.85 | 0.927 |
| *MMP9* | 76.93 | 173.21 | 44.38 | 0.148 |
| Transmembrane receptor | *CLEC7A* | 79.54 | 48.01 | 9.25 | 0.031 |
| Nutrient transporters | *SLC16A1* | 4859.63 | 8021.43 | 847.29 | 0.019 |
| *SLC16A7* | 210.16 | 208.98 | 12.03 | 0.946 |

NFKB1, nuclear factor kappa B subunit 1; CXCL8, C-X-C motif chemokine ligand 8; IL1A, interleukin 1A; IL1B, interleukin 1B; IFNG, interferon gamma; OCLN, occludin; MUC1, mucin 1; MUC2, mucin 2; MUC4, mucin 4; TLR1, toll-like receptor 1; TLR2, toll-like receptor 2; TLR4, toll-like receptor 4; TLR6, toll-like receptor 6; PPARG, peroxisome proliferator activated receptor gamma; SOCS1, suppressor of cytokine signalling 1; SOCS3, suppressor of cytokine signalling 3; MMP2, matrix metalloproteinase 2; MMP3, matrix metalloproteinase 3; MMP9, matrix metalloproteinase 9; CLEC7A, C-type lectin domain containing 7A; SLC16A1, monocarboxylate transporter 1; SLC16A7, monocarboxylate transporter 7.