

Table S1. Primer sequences used for RT-qPCR

Primer's Name	Sequence (5' to 3')	Product Length (bp)	Primer Efficiency (%)	Accession No.
<b>Immune-related</b>				
<i>IDO1-F</i>	GGTCTGCTGTATGAAGGCGTCTG	178	97.6	KF819363.1
<i>IDO1-R</i>	CTGGTGGCATGTATGTTCTCATCTCC			
<i>MX2-F</i>	GCTCCAACCTCTACTAACACACCAC	190	100.3	XM_018051644.1
<i>MX2-R</i>	CGTCTGCTTCTGGCTGCTGAG			
<i>NOS2-F</i>	GCGACTGCCACCTTGCTCAC	133	98.6	XM_013971952.2
<i>NOS2-R</i>	GGTCTCCAGCCTCTGCCTCTC			
<i>PI3-F</i>	GTGGCAGAGGCAGCTATCATAAGAG	106	102.9	XM_005688585.3
<i>PI3-R</i>	TGACAGGATATTGACC GTT GATTGGAC			
<i>CCL20-F</i>	TCCGATACACAGAACGAATACTTCACC	85	101.4	XM_005676644.3
<i>CCL20-R</i>	GCATTGATGTCACAGGCTTCATTGG			
<i>CXCL10-F</i>	CTAGGAATACACGCTGTACCTGCATC	127	99.4	NM_001285721.1
<i>CXCL10-R</i>	TTCATTGTGGCAATAATCTGACACG			
<i>C2-F</i>	TAAGCAATGCCGAGGACAGAACAC	169	100.8	XM_013974002.2
<i>C2-R</i>	AGCAGAGCAATGTCATGCCATAG			
<i>C4-F</i>	TCACGGTCACGGTGGAGAACTC	118	97.8	XM_018045255.1
<i>C4-R</i>	CATGTT CCTGGCTCTGAGATGTCTG			
<b>Carbohydrate-related</b>				
<i>SI-F</i>	CCTACCATGTCAAGAGCCTGCTAAC	98	98.9	XM_018053782.1
<i>SI-R</i>	ATCCTCGTGCACATCTGATTATCATCTG			
<i>MGAM-F</i>	GCGTGGCTGTTGCTGGAGTC	186	102.1	XM_018046851.1
<i>MGAM-R</i>	TCTGCTGTGAGAAGGACATTGTTGAC			
<i>GLUT2-F</i>	TGTTTCACTGGATGACGGAAT	100	99.5	XM_005675321.1
<i>GLUT2-R</i>	AGCCCAAGAGAGACTGGTGTG			
<b>Protein-related</b>				
<i>SLC7A7-F</i>	GAGTGCCAGAACACAAACGA	116	100.5	XM_013966889.2
<i>SLC7A7-R</i>	TCCTCCATCTTCAAATCCA			
<i>SLC7A8-F</i>	GATTGGTCAGTGCTTGCTATCATTG	134	97.3	XM_005685251.3
<i>SLC7A8-R</i>	GATAACGCCTGTCACGATCCAGATG			
<i>SLC15A1-F</i>	AGAGCACTCCTGATCCTGTACTTCC	84	98.2	XM_018056419.1
<i>SLC15A1-R</i>	GGCGACGAACGTGTGATAGATGG			
<b>Lipid-related</b>				
<i>AKR1C3-F</i>	TCCTGGTTGCCTATGGTGTCTG	198	102.7	XM_018057318.1
<i>AKR1C3-R</i>	TGATCCGCTTCCTGTTGTAACCTTG			
<i>IFA38-F</i>	AAGGACCTGGAGATCGGAGTATTGG	83	101.3	XM_018062587.1
<i>IFA38-R</i>	TCCTCACAGTCGAGCAGTCTACG			
<b>Retinol-related</b>				
<i>RDH16-F</i>	CCTCCAGGACAAGTCGCTTCATC	105	97.4	XM_005680322.3
<i>RDH16-R</i>	AGACACGCAGCCAGGACTCTC			
<i>SLC19A3-F</i>	TGGACCTACTCTACCTGGCACTAC	84	98.3	XM_005676643.3
<i>SLC19A3-R</i>	CTGGAGGATGATGACTGGCTTAG			
<b>Internal reference</b>				
<i>GADPH-F</i>	TTCCACGGCACAGTCAAG	116	99.8	AJ431207.1
<i>GADPH-R</i>	TACTCAGCACCCAGCATCACC			
<i>β-actin-F</i>	CTGGCACCAACACCTTCTACA			
<i>β-actin-R</i>	GGGT CATCTCTCACGGTTG	107	98.7	JX046106.1

Table S2. Significant KEGG (Kyoto Encyclopedia of Genes and Genomes) pathway enrichment of DE (differentially expressed) genes

Pathway Hierarchy 2	KEGG Pathway	Pathway ID	DE gene Number	Background number	P-Value	Q-Value
Amino acid metabolism	Histidine metabolism	ko00340	7	46	5.73E-06	1.10E-04
	Arginine and proline metabolism	ko00330	8	105	1.84E-04	1.95E-03
	Cysteine and methionine metabolism	ko00270	7	98	6.62E-04	5.85E-03
	Glycine, serine and threonine metabolism	ko00260	5	83	7.34E-03	3.79E-02
Cancers	Chemical carcinogenesis	ko05204	11	176	7.27E-05	1.03E-03
Carbohydrate metabolism	Butanoate metabolism	ko00650	6	53	1.43E-04	1.59E-03
	Starch and sucrose metabolism	ko00500	5	58	1.71E-03	1.20E-02
Digestive system	Bile secretion	ko04976	15	191	2.42E-07	8.54E-06
	Vitamin digestion and absorption	ko04977	7	39	1.83E-06	4.86E-05
	Protein digestion and absorption	ko04974	12	243	2.91E-04	2.93E-03
	Mineral absorption	ko04978	5	83	7.34E-03	3.79E-02
	Carbohydrate digestion and absorption	ko04973	5	88	9.16E-03	4.63E-02
Drug resistance	Antifolate resistance	ko01523	10	126	2.17E-05	3.28E-04
Endocrine and metabolic diseases	Type I diabetes mellitus	ko04940	6	108	5.08E-03	2.76E-02
Endocrine system	Ovarian Steroidogenesis	ko04913	14	142	3.81E-08	1.62E-06
Energy metabolism	Nitrogen metabolism	ko00910	7	38	1.53E-06	4.63E-05
Excretory system	Aldosterone-regulated sodium reabsorption	ko04960	6	102	3.92E-03	2.38E-02
Glycan biosynthesis and metabolism	Other types of O-glycan biosynthesis	ko00514	5	51	9.74E-04	7.65E-03
	Glycosaminoglycan biosynthesis - heparan sulfate / heparin	ko00534	5	54	1.25E-03	9.48E-03
Immune diseases	Rheumatoid arthritis	ko05323	10	153	1.06E-04	1.33E-03
	Graft-versus-host disease	ko05332	6	87	1.86E-03	1.27E-02
	Allograft rejection	ko05330	6	92	2.42E-03	1.56E-02
	Autoimmune thyroid disease	ko05320	6	106	4.67E-03	2.68E-02
Immune system	Antigen processing and presentation	ko04612	12	151	3.35E-06	7.83E-05

	Complement and coagulation cascades	ko04610	12	182	2.11E-05	3.28E-04
Infectious diseases	Pertussis	ko05133	9	155	5.27E-04	5.08E-03
	Herpes simplex infection	ko05168	16	429	6.27E-04	5.78E-03
	Staphylococcus aureus infection	ko05150	6	102	3.92E-03	2.38E-02
Lipid metabolism	Arachidonic acid metabolism	ko00590	28	188	1.22E-19	2.58E-17
	Steroid hormone biosynthesis	ko00140	24	160	4.35E-17	4.61E-15
	Linoleic acid metabolism	ko00591	6	84	1.56E-03	1.14E-02
Membrane transport	ABC transporters	ko02010	16	171	8.63E-09	6.10E-07
Metabolism of cofactors and vitamins	Retinol metabolism	ko00830	14	130	1.25E-08	6.63E-07
Transport and catabolism	Phagosome	ko04145	15	315	8.16E-05	1.08E-03
Xenobiotics biodegradation and metabolism	Drug metabolism - cytochrome P450	ko00982	8	129	6.95E-04	5.90E-03
	Drug metabolism - other enzymes	ko00983	6	107	4.87E-03	2.72E-02