

**A.**

<b>UP REGULATED GENES</b>			
<b>Category</b>	<b>Term</b>	<b>Gene count</b>	<b>EASE PValue</b>
Biological process	system development	34	0.00011
Biological process	organ development	27	0.00027
Biological process	muscle system process	8	0.00223
Biological process	negative regulation of biological process	23	0.00267
Biological process	negative regulation of cellular process	22	0.00355
Biological process	regulation of muscle contraction	4	0.00656
Biological process	organic acid transport	5	0.00728
Biological process	cell motility	11	0.01013
Biological process	response to hypoxia	4	0.01691
Biological process	amino acid and derivative metabolic process	9	0.02686
Biological process	regulation of cell adhesion	4	0.03438
Biological process	regulation of multicellular organismal process	8	0.03525
Biological process	regulation of developmental process	7	0.03656
Biological process	cell death	15	0.04143
Biological process	sulfur metabolic process	4	0.04640
Cellular component	extracellular matrix	16	0.00001
Cellular component	plasma membrane	40	0.00113
Cellular component	plasma membrane part	28	0.01028
Cellular component	extracellular space	12	0.01154
Cellular component	collagen	3	0.04885
Molecular function	cytoskeletal protein binding	13	0.00060
Molecular function	L-ascorbic acid binding	4	0.00115
Molecular function	metal ion binding	48	0.00229
Molecular function	cation binding	42	0.01394
Molecular function	dioxygenase activity	4	0.01907
Molecular function	oxidoreductase activity	4	0.01907
Molecular function	polysaccharide binding	5	0.02220
Molecular function	protein complex binding	5	0.02374
Molecular function	receptor binding	14	0.03023
Molecular function	calmodulin binding	5	0.04727

**B.**

<b>DOWN REGULATED GENES</b>			
<b>Category</b>	<b>Term</b>	<b>Gene count</b>	<b>EASE PValue</b>
Biological process	regulation of immune system process	8	0.00035
Biological process	regulation of cell proliferation	13	0.03354
Biological process	lipid metabolic process	27	0.00000
Biological process	system development	36	0.00321
Biological process	leukocyte mediated immunity	5	0.02451
Biological process	positive regulation of biological process	26	0.00448
Biological process	lipid biosynthetic process	12	0.00046
Biological process	organ development	31	0.00065
Biological process	response to toxin	3	0.04007
Biological process	positive regulation of multicellular organismal process	8	0.00051
Biological process	regulation of multicellular organismal process	10	0.01802
Biological process	regulation of immune response	8	0.00030
Biological process	immune effector process	7	0.00440
Biological process	humoral immune response	8	0.00007
Biological process	complement activation	7	0.00001
Biological process	innate immune response	6	0.00903

Biological process	adaptive immune response	5	0.02348
Biological process	organ morphogenesis	12	0.02292
Biological process	alcohol metabolic process	15	0.00004
Biological process	cellular lipid metabolic process	20	0.00016
Biological process	positive regulation of immune system process	8	0.00012
Biological process	learning and/or memory	4	0.04557
Cellular component	endoplasmic reticulum part	16	0.00097
Cellular component	extracellular matrix	7	0.01951
Cellular component	endoplasmic reticulum membrane	16	0.00026
Cellular component	endomembrane system	22	0.00615
Cellular component	nuclear envelope-endoplasmic reticulum network	16	0.00033
Cellular component	extracellular space	13	0.04742
Molecular function	bile acid binding	2	0.02738
Molecular function	intramolecular oxidoreductase activity	4	0.01413
Molecular function	oxidoreductase activity, acting on the CH-CH group of donors	6	0.00029
Molecular function	oxidoreductase activity, acting on CH-OH group of donors	6	0.01037
Molecular function	phosphatase inhibitor activity	3	0.03638
Molecular function	serine hydrolase activity	6	0.04990