



Identification of Molecular Signatures from Different Vaccine Adjuvants in Chicken by Integrative Analysis of Microarray Data

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- Supplementary Data -

Supplementary Table S1. Significant biological process (BPs) from differentially expressed genes by the treatment of ISA and QCDC adjuvants

Categories	Adjuvants	Biological process	P-value	Number of genes
Anatomical structure development	ISA	Angiogenesis	7.26E-04	21
		Vasculature development	7.36E-04	34
		Blood vessel morphogenesis	1.24E-03	28
		Blood vessel development	1.53E-03	32
		Heart development	1.20E-02	30
		Cell motion	1.93E-02	39
		In utero embryonic development	4.19E-02	23
		Liver development	4.52E-02	7
	QCDC	Gut development	1.65E-02	4
	Cell death	ISA	Regulation of programmed cell death	2.49E-05
Regulation of cell death			2.96E-05	69
Regulation of apoptosis			4.80E-05	67
Negative regulation of cell death			1.42E-03	36
Negative regulation of programmed cell death			1.42E-03	36
Negative regulation of apoptosis			2.00E-03	35
Programmed cell death			6.40E-03	33
Apoptosis			7.51E-03	32
Death			9.84E-03	35
Cell death			1.32E-02	34
Regulation of neuron apoptosis			1.55E-02	12
Positive regulation of apoptosis			1.93E-02	27
Positive regulation of programmed cell death		1.93E-02	27	
Positive regulation of cell death		2.23E-02	27	
Anti-apoptosis		3.80E-02	15	
QCDC		Regulation of apoptosis	1.16E-02	14
Regulation of programmed cell death		1.35E-02	14	
Regulation of cell death		1.40E-02	14	
Positive regulation of apoptosis	1.69E-02	8		

		Positive regulation of programmed cell death	1.69E-02	8
		Positive regulation of cell death	1.79E-02	8
Regulation of metabolic process	ISA	Positive regulation of macromolecule metabolic process	1.26E-03	77
		Regulation of cellular protein metabolic process	2.08E-03	38
		Regulation of phosphorylation	4.62E-03	38
		Regulation of kinase activity	5.19E-03	28
		Regulation of phosphate metabolic process	5.30E-03	39
		Regulation of phosphorus metabolic process	5.30E-03	39
		Regulation of protein kinase activity	7.32E-03	27
		Regulation of transferase activity	7.41E-03	28
		Negative regulation of macromolecule metabolic process	7.65E-03	52
		Regulation of translation	9.95E-03	13
		Regulation of peptidyl-tyrosine phosphorylation	1.32E-02	11
		Negative regulation of kinase activity	1.50E-02	10
		Negative regulation of protein kinase activity	1.50E-02	10
		Negative regulation of molecular function	1.58E-02	19
		Positive regulation of DNA metabolic process	2.10E-02	10
		Positive regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	2.17E-02	57
	Negative regulation of cellular protein metabolic process	2.42E-02	14	
	Negative regulation of protein metabolic process	2.42E-02	14	
	Negative regulation of biosynthetic process	2.45E-02	42	
	Positive regulation of protein kinase cascade	2.54E-02	15	
	Regulation of system process	2.72E-02	23	
	Positive regulation of cellular biosynthetic process	2.74E-02	60	
	Negative regulation of transferase activity	2.84E-02	10	
	Positive regulation of biosynthetic process	2.98E-02	60	
	Negative regulation of catalytic activity	3.02E-02	14	
	Positive regulation of macromolecule biosynthetic process	3.20E-02	58	
	Regulation of protein kinase cascade	3.24E-02	17	
	Positive regulation of cellular protein metabolic process	3.26E-02	18	
	Positive regulation of nitrogen compound metabolic process	3.60E-02	57	
	Positive regulation of protein metabolic process	3.86E-02	18	
	Negative regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	3.93E-02	37	
	Negative regulation of macromolecule biosynthetic process	4.06E-02	39	
Negative regulation of cellular biosynthetic process	4.32E-02	40		
Negative regulation of nitrogen compound metabolic process	4.80E-02	37		
Positive regulation of catalytic activity	4.96E-02	30		
QCDC	Regulation of phosphorylation	1.23E-02	10	
	Regulation of phosphate metabolic process	1.57E-02	10	
	Regulation of phosphorus metabolic process	1.57E-02	10	
	Positive regulation of catalytic activity	4.56E-02	8	
	Positive regulation of molecular function	3.34E-02	9	
Response to stimulus	ISA	Cellular response to stress	2.69E-04	53
		Response to oxidative stress	2.06E-03	15
		Positive regulation of locomotion	4.61E-03	14
		Positive regulation of chemotaxis	7.27E-03	8
		Regulation of chemotaxis	7.27E-03	8
		Chemotaxis	9.95E-03	13
		Taxis	9.95E-03	13
		Positive regulation of behavior	1.20E-02	8
		Regulation of behavior	1.20E-02	8

		Response to tumor necrosis factor	1.74E-02	5
		Cellular response to oxidative stress	2.02E-02	6
		Positive regulation of cell migration	3.17E-02	11
		Response to inorganic substance	3.34E-02	9
		Positive regulation of cell motion	3.41E-02	12
		Fibroblast growth factor receptor signaling pathway	3.42E-02	5
	QCDC	Immune response	9.48E-04	13
		Response to toxin	1.78E-02	3
		Defense response	2.01E-02	8
		Response to bacterium	4.49E-02	5
		Innate immune response	4.85E-02	4
Signal transduction	ISA	Positive regulation of signal transduction	4.18E-04	32
		Positive regulation of cell communication	4.49E-04	33
		Small GTPase mediated signal transduction	1.45E-02	36
		Intracellular signaling cascade	2.30E-02	93
		Positive regulation of calcium-mediated signaling	3.42E-02	5
		Integrin-mediated signaling pathway	4.86E-02	10
	QCDC	Intracellular signaling cascade	2.21E-02	20
Single organism cellular process	ISA	Cell cycle	2.53E-02	41
		Cell cycle process	4.44E-02	30
	QCDC	Collagen fibril organization	4.30E-02	3