

Supplemental Table 4. Organ-Specific Gene Ontology

Organs	GO Number	Ontology Description	Total Genes in Array	Total Genes in Cluster	P-value
Adrenal(131)	GO:0015247	Aminophospholipid transporter activity	5	2	4.7×10^{-4}
Bladder(82)	GO:0005604	Basement membrane	470	104	1.0×10^{-6}
	GO:0005581	Collagen	268	54	5.5×10^{-4}
Cerebellum(529)	GO:0007417	Central nervous system development	58	8	2.0×10^{-4}
	GO:0007420	Brain development	15	4	6.4×10^{-4}
Cerebrum(426)	GO:0019226	Transmission of nerve impulse	130	11	1.7×10^{-4}
	GO:0030594	Neurotransmitter receptor activity	33	5	8.0×10^{-4}
Colon(1)	-	-			
Heart(140)	GO:0008016	Regulation of heart rate	22	5	4.9×10^{-7}
	GO:0006936	Muscle contraction	93	7	5.8×10^{-6}
	GO:0030484	Muscle fiber	25	4	3.2×10^{-5}
Ileum(6)	-	-			
Kidney(111)	GO:0006811	Ion transport	308	11	2.0×10^{-6}
	GO:0008514	Organic anion transporter activity	27	4	1.8×10^{-5}
	GO:0015290	Electrochemical potential-driven transporter activity	107	5	4.2×10^{-4}
Liver(639)	GO:0016491	Oxidoreductase activity	476	54	5.3×10^{-15}
	GO:0006629	Lipid metabolism	303	40	1.5×10^{-13}
	GO:0006956	Complement activation	26	11	2.9×10^{-10}
	GO:0008202	Steroid metabolism	81	12	1.7×10^{-5}
	GO:0006066	Alcohol metabolism	133	15	4.4×10^{-5}
	GO:0015034	Cytochrome P450 activity	22	6	6.8×10^{-5}
	GO:0000050	Urea cycle	6	3	7.1×10^{-4}
Lung(135)	GO:0006955	Immune response	470	17	4.3×10^{-8}
	GO:0007585	Respiratory gaseous exchange	14	4	2.3×10^{-6}
	GO:0019886	Exogenous antigen processing via MHC class II	5	3	3.5×10^{-6}
	GO:0045087	Innate immune response	130	7	4.1×10^{-5}
Ovary(37)	-	-			
Pancreas(145)	GO:0007586	Digestion	30	6	9.3×10^{-8}
	GO:0004252	Serine-type endopeptidase activity	77	6	2.8×10^{-5}
	GO:0005791	Rough endoplasmic reticulum	4	2	3.5×10^{-4}
Prostate(86)	GO:0006334	Nucleosome assembly	35	3	5.3×10^{-4}
S. Muscle(405)	GO:0008307	Structural constituent of muscle	32	10	7.6×10^{-10}
	GO:0007517	Muscle development	91	14	8.1×10^{-9}
	GO:0006941	Striated muscle contraction	19	7	7.9×10^{-8}
	GO:0016460	Myosin II	13	4	1.3×10^{-4}
	GO:0015629	Actin cytoskeleton	137	10	7.4×10^{-4}
Spleen(181)	GO:0006959	Humoral immune response	127	7	2.2×10^{-4}
	GO:0001584	Rhodopsin-like receptor activity	156	7	7.7×10^{-4}
Stomach(7)	-	-			
Testis(1188)	GO:0019953	Sexual reproduction	82	25	1.6×10^{-11}
	GO:0007283	Spermatogenesis	60	20	2.9×10^{-10}
	GO:0007067	Mitosis	95	20	1.4×10^{-6}
	GO:0009566	Fertilization	14	7	8.6×10^{-6}
Ureter(21)	GO:0006366	Transcription from Pol II promoter	357	4	5.8×10^{-4}
Uterus(21)	-	-			