

Supplementary Table S6. Enrichment and depletion levels within imprinted genes

Body Systems

Name	Enrichment ratio	Observed	Expected
endocrine	3.209205984	8	2.492828457
reproductive	1.901948558	7	3.68043603
urinary	1.607686395	6	3.732071142
skeleton	1.225846154	8	6.526104418
respiratory	1.185042493	6	5.063109581
cardiovascular	1.165329513	7	6.006884682
skeletal muscle	1.158139535	8	6.907630522
integumentary	1.075451741	7	6.508892714
nervous	1.058502024	9	8.502581756
digestive	0.895683453	5	5.582329317
lymphatic	0.493767705	1	2.025243832
immune	0.477534247	2	4.188181297

Germ Layers

Name	Enrichment ratio	Observed	Expected
endoderm	1.132737612	8	7.062535858
ectoderm	1.088354667	10	9.188181297
mesoderm	1.056363636	10	9.466437177

Organs

Name	Enrichment ratio	Observed	Expected
parathyroid	5.363076923	1	0.186460126
vagina	3.864745011	5	1.293746414
diaphragm	3.844852941	3	0.780263913
penis	3.789130435	7	1.847389558
ovary	3.740343348	5	1.336775674
adrenal gland	3.708510638	3	0.808950086
vas deferens	3.351923077	1	0.298336202
fallopian tube	3.257943925	1	0.306942054
pituitary gland	3.235266821	4	1.236374068

vulva	2.962606232	3	1.012621916
pancreas	2.707572816	4	1.477337923
meninges	2.313716814	3	1.296615032
wrist	2.312985782	7	3.026391279
breast	2.263636364	3	1.325301205
forehead	2.146551724	5	2.329317269
testis	2.105072464	5	2.375215146
sweat gland	2.1	2	0.952380952
lips	2.060283688	5	2.426850258
prostate	1.997707736	2	1.001147447
elbow	1.993898951	6	3.009179575
abdominal wall	1.969491525	3	1.5232358
knee	1.942061281	6	3.089500861
uterus	1.933980583	4	2.068273092
ankle	1.927741935	6	3.112449799
hip	1.927741935	6	3.112449799
shoulder	1.877558348	6	3.195639702
kidney	1.877558348	6	3.195639702
thyroid	1.864171123	1	0.53643144
fingers	1.827522936	8	4.37751004
lymph nodes	1.82513089	1	0.547905909
fibula	1.787692308	4	2.237521515
neck	1.785076811	7	3.921399885
digit	1.778571429	8	4.497991968
chest wall	1.773143438	5	2.819850832
scapula	1.771791614	4	2.257601836
tibia	1.753962264	4	2.280550775
peripheral nerve	1.739272986	7	4.024670109
hand	1.718299445	8	4.655765921
large intestine	1.713022113	4	2.335054504
ulna	1.706731946	4	2.343660356
clavicle	1.684057971	4	2.375215146
radius	1.675961538	4	2.386689616

rib	1.674351585	5	2.986230637
rib cage	1.674351585	5	2.986230637
sternum	1.671942446	4	2.39242685
heart	1.66	7	4.21686747
toes	1.655495251	7	4.228341939
humerus	1.652132701	4	2.421113024
tongue	1.64822695	2	1.213425129
vertebrae	1.647448015	5	3.034997131
femur	1.638542891	4	2.441193345
pelvis	1.580235721	5	3.164084911
spinal column	1.557640751	5	3.209982788
placenta	1.55625	1	0.642570281
larynx	1.542477876	2	1.296615032
shin	1.539072848	4	2.598967298
upper limb	1.539072848	8	5.197934596
teeth	1.500430416	3	1.999426277
thigh	1.492933619	4	2.679288583
urinary bladder	1.48974359	2	1.342512909
ureter	1.467789474	2	1.36259323
small intestine	1.466760168	3	2.045324154
intestine	1.436045314	4	2.785427424
forearm	1.428688525	4	2.799770511
foot	1.425350467	7	4.911072863
ear	1.406354009	8	5.688468158
arm	1.377865613	4	2.903040734
cheek	1.36171875	2	1.468732071
skull	1.290428345	7	5.424555364
mandible	1.289201183	5	3.878370625
maxilla	1.288248337	5	3.881239243
blood vessels	1.282403433	6	4.678714859
jaw	1.279735683	5	3.907056799
lower limb	1.274255875	7	5.49340218
spinal cord	1.255085509	4	3.18703385

eyelid	1.255085509	4	3.18703385
brain	1.249462366	10	8.003442341
stomach	1.239099526	3	2.421113024
face	1.211117545	6	4.954102123
pharynx	1.193835616	2	1.675272519
peripheral nervous system	1.191503906	7	5.874928285
mouth	1.163292547	6	5.157773953
outer ear	1.144201313	3	2.621916236
head	1.14033366	10	8.769363167
eye	1.12815534	7	6.204819277
skin	1.104662743	7	6.336775674
vocal cords	1.092789969	1	0.915088927
hair	1.063886063	3	2.819850832
chin	1.006060606	2	1.987951807
urethra	0.996	1	1.004016064
lung	0.930841121	4	4.297188755
heart valve	0.866086957	2	2.309236948
rectum	0.833971292	1	1.199082042
spleen	0.723236515	1	1.382673551
liver	0.72173913	2	2.771084337
white blood cells	0.715076923	2	2.796901893
nose	0.608908297	2	3.284566839
blood	0.593530079	3	5.054503729
esophagus	0.482157676	1	2.074010327
cranial nerve	0.457780696	2	4.368904188
cerebellum	0.302341717	1	3.307515777
middle ear	0	0	1.385542169
inner ear	0	0	0.711417097
anus	0	0	0.616752725
bronchus	0	0	0.840504877
biliary tract	0	0	0.874928285
gallbladder	0	0	0.487664945
olfactory bulb	0	0	0.433161216

red blood cells	0	0	2.283419392
coagulation system	0	0	2.111302352
aorta	0	0	0.562248996
bone marrow	0	0	1.179001721
nail	0	0	1.250717154
cerebrospinal fluid	0	0	0.814687321
sinuses	0	0	0.347102697
duodenum	0	0	0.545037292
trachea	0	0	0.742971888
epiglottis	0	0	0.438898451
scalp	0	0	0.5794607
lymph vessels	0	0	0.195065978
lacrimal apparatus	0	0	0.255306942
salivary gland	0	0	0.510613884
hypothalamus	0	0	0.370051635
appendix	0	0	0.051635112
thymus	0	0	0.215146299

Body Regions

Name	Enrichment ratio	Observed	Expected
pelvis	1.483404255	8	5.393000574
abdomen	1.38677275	8	5.768789443
limbs	1.377865613	8	5.806081469
thorax	1.32940678	9	6.76993689
head and neck	1.103863205	10	9.059093517
non-specific	0.987535411	9	9.113597246

P-value	FDR
0.00152776	0.018333125
0.048369662	0.29021797
0.125485993	0.501943971
0.215263352	0.50256854
0.305197286	0.50256854
0.293622081	0.50256854
0.268425164	0.50256854
0.381940507	0.50925401
0.335045693	0.50256854
0.359096787	0.9997866
0.23578731	0.9997866
0.08717553	0.9997866

P-value	FDR
0.292386988	0.292386988
0.189767052	0.284650578
0.163193952	0.284650578

P-value	FDR
0.428104786	0.542266839
0.013344441	0.411575456
0.076776387	0.411575456
0.001862195	0.232774405
0.014825837	0.411575456
0.080977704	0.411575456
0.403131513	0.536079139
0.401695958	0.536079139
0.0491567	0.411575456

0.111548039	0.461548728
0.072330745	0.411575456
0.155548736	0.461548728
0.02067755	0.411575456
0.160064015	0.461548728
0.076708979	0.411575456
0.080836883	0.411575456
0.255714569	0.499646263
0.085607695	0.411575456
0.264104326	0.499646263
0.062557925	0.411575456
0.191623964	0.461548728
0.068360932	0.411575456
0.142262396	0.461548728
0.070073428	0.411575456
0.070073428	0.411575456
0.076484534	0.411575456
0.076484534	0.411575456
0.384879243	0.534328106
0.036308416	0.411575456
0.384989645	0.534328106
0.165198047	0.461548728
0.062700265	0.411575456
0.041588139	0.411575456
0.126202739	0.461548728
0.167999532	0.461548728
0.171221984	0.461548728
0.069571039	0.411575456
0.049267705	0.411575456
0.17896396	0.461548728
0.18019778	0.461548728
0.184748399	0.461548728
0.18641354	0.461548728

0.145605805	0.461548728
0.145605805	0.461548728
0.187248187	0.461548728
0.083550213	0.411575456
0.084434366	0.411575456
0.191442179	0.461548728
0.300873065	0.505649388
0.151537565	0.461548728
0.194398577	0.461548728
0.167771051	0.461548728
0.173728479	0.461548728
0.388756872	0.534328106
0.315677728	0.505649388
0.218219967	0.487098141
0.082715767	0.411575456
0.271681028	0.499646263
0.230753261	0.497313062
0.323989289	0.505649388
0.327660803	0.505649388
0.279801907	0.499646263
0.247738328	0.499646263
0.250070683	0.499646263
0.147344398	0.461548728
0.12297765	0.461548728
0.267124734	0.499646263
0.34744871	0.520848389
0.20851968	0.482684446
0.271492006	0.499646263
0.271955962	0.499646263
0.244571721	0.499646263
0.276148531	0.499646263
0.217677006	0.487098141
0.31637588	0.505649388

0.31637588	0.505649388
0.134507053	0.461548728
0.349458685	0.520848389
0.287267038	0.505649388
0.387898291	0.534328106
0.272775397	0.499646263
0.321243109	0.505649388
0.388990861	0.534328106
0.188931608	0.461548728
0.326707297	0.505649388
0.350010117	0.520848389
0.422361369	0.542266839
0.429356609	0.542266839
0.453704154	0.550611838
0.438715887	0.544295063
0.433843475	0.999724838
0.43639572	0.999724838
0.468444167	0.999724838
0.406652106	0.999724838
0.31689974	0.999724838
0.310849222	0.999724838
0.209947486	0.999724838
0.106720574	0.999724838
0.225513385	0.999724838
0.071241105	0.999724838
0.062338351	0.999724838
0.112291278	0.999724838
0.238800057	0.999724838
0.264321465	0.999724838
0.207572558	0.999724838
0.199891491	0.999724838
0.303077326	0.999724838
0.320922563	0.999724838

0.037286925	0.999724838
0.046507136	0.999724838
0.280104795	0.999724838
0.142362827	0.999724838
0.13118724	0.999724838
0.213506581	0.999724838
0.297938926	0.505649388
0.285262332	0.999724838
0.230799584	0.999724838
0.319000588	0.999724838
0.275031333	0.999724838
0.179015388	0.461548728
0.22814719	0.497313062
0.295834594	0.999724838
0.314474279	0.505649388
0.050515435	0.411575456
0.195696661	0.461548728

P-value	FDR
0.09755842	0.201146852
0.130509474	0.201146852
0.134097901	0.201146852
0.123695971	0.201146852
0.193613316	0.232335979
0.412694217	0.946192123