

Supplementary Table S5: Significantly enriched GO terms among the differentially expressed genes (0.5>FC>2, FDR<0.05).

Annotation Category	Cluster 1 Term	Enrichment Score: 5.558267177348318	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0032501~multicellular organismal process		61	39.35	2.52E-09	125	1805	7505	2.03	3.03E-06	3.03E-06	4.08E-06	ENSG00000128342, ENSG00000196136, ENSG00000188064, ENSG00000179542, ENSG00000100473, ENSG00000150938, ENSG00000118785, ENSG00000149968, ENSG00000145675, ENSG00000091137, ENSG00000106366, ENSG00000104332, ENSG00000172348, ENSG00000107623, ENSG00000146674, ENSG00000173198, ENSG00000074181, ENSG00000134363, ENSG00000162998, ENSG00000134259, ENSG00000146233, ENSG00000104783, ENSG00000165617, ENSG00000102466, ENSG00000151150, ENSG00000187957, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000066382, ENSG00000002745, ENSG00000112280, ENSG00000180616, ENSG00000077063, ENSG00000006327, ENSG00000165973, ENSG00000152270, ENSG00000107984, ENSG00000159307, ENSG00000150938, ENSG00000118785, ENSG00000196878, ENSG00000111245, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000168546, ENSG00000172348, ENSG00000153902, ENSG00000107623, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000122756, ENSG00000054938, ENSG00000166923, ENSG00000092054, ENSG00000182580, ENSG00000189056, ENSG00000133083, ENSG00000112175, ENSG00000114270, ENSG00000106565, ENSG00000164116
GOTERM_BP_ALL	GO:0048731~system development		45	29.03	5.67E-08	125	1190	7505	2.27	6.82E-05	3.41E-05	9.17E-05	ENSG00000102466, ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000066382, ENSG00000112280, ENSG00000077063, ENSG00000188064, ENSG00000179542, ENSG00000006327, ENSG00000165973, ENSG00000152270, ENSG00000107984, ENSG00000159307, ENSG00000150938, ENSG00000118785, ENSG00000196878, ENSG00000111245, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000168546, ENSG00000172348, ENSG00000153902, ENSG00000107623, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000122756, ENSG00000054938, ENSG00000166923, ENSG00000092054, ENSG00000182580, ENSG00000134363, ENSG00000189056, ENSG00000162998, ENSG00000134259, ENSG00000133083, ENSG00000112175, ENSG00000106565, ENSG00000114270
GOTERM_BP_ALL	GO:0048856~anatomical structure development		47	30.32	1.25E-07	125	1312	7505	2.15	1.51E-04	5.02E-05	2.02E-04	ENSG00000138449, ENSG00000102466, ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000066382, ENSG00000112280, ENSG00000077063, ENSG00000188064, ENSG00000179542, ENSG00000006327, ENSG00000165973, ENSG00000152270, ENSG00000107984, ENSG00000159307, ENSG00000150938, ENSG00000118785, ENSG00000196878, ENSG00000034971, ENSG00000111245, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000168546, ENSG00000172348, ENSG00000153902, ENSG00000107623, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000122756, ENSG00000054938, ENSG00000166923, ENSG00000092054, ENSG00000182580, ENSG00000134363, ENSG00000189056, ENSG00000162998, ENSG00000134259, ENSG00000133083, ENSG00000112175, ENSG00000106565, ENSG00000114270
GOTERM_BP_ALL	GO:0032502~developmental process		53	34.19	2.78E-07	125	1631	7505	1.95	3.35E-04	8.37E-05	4.50E-04	ENSG00000138449, ENSG00000128342, ENSG00000188064, ENSG00000179542, ENSG00000106538, ENSG00000150938, ENSG00000118785, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000172348, ENSG00000107623, ENSG00000146674, ENSG00000074181, ENSG00000134363, ENSG00000134259, ENSG00000162998, ENSG00000052850, ENSG00000102466, ENSG00000187957, ENSG00000151150, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000066382, ENSG00000112280, ENSG00000002745, ENSG00000077063, ENSG00000006327, ENSG00000165973, ENSG00000107984, ENSG00000152270, ENSG00000159307, ENSG00000182752, ENSG00000196878, ENSG00000034971, ENSG00000156076, ENSG00000111245, ENSG00000168546, ENSG00000153902, ENSG00000176887, ENSG00000048052, ENSG00000122756, ENSG00000166923, ENSG00000054938, ENSG00000182580, ENSG00000092054, ENSG00000127954, ENSG00000189056, ENSG00000133083, ENSG00000112175, ENSG00000106565, ENSG00000114270
GOTERM_BP_ALL	GO:0007275~multicellular organismal development		48	30.97	1.20E-06	125	1462	7505	1.97	0.0014438	2.89E-04	0.001942	ENSG00000102466, ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000066382, ENSG00000002745, ENSG00000112280, ENSG00000077063, ENSG00000188064, ENSG00000179542, ENSG00000006327, ENSG00000165973, ENSG00000152270, ENSG00000107984, ENSG00000159307, ENSG00000150938, ENSG00000118785, ENSG00000196878, ENSG00000156076, ENSG00000111245, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000168546, ENSG00000172348, ENSG00000153902, ENSG00000107623, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000122756, ENSG00000054938, ENSG00000166923, ENSG00000092054, ENSG00000182580, ENSG00000134363, ENSG00000189056, ENSG00000162998, ENSG00000134259, ENSG00000133083, ENSG00000112175, ENSG00000106565, ENSG00000114270, ENSG00000165617
GOTERM_BP_ALL	GO:0030154~cell differentiation		30	19.35	3.36E-05	125	803	7505	2.24	0.0395919	0.0040316	0.05429	ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000112280, ENSG00000077063, ENSG00000006327, ENSG00000179542, ENSG00000159307, ENSG00000106538, ENSG00000182752, ENSG00000118785, ENSG00000196878, ENSG00000111245, ENSG00000145675, ENSG00000104332, ENSG00000153902, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000054938, ENSG00000182580, ENSG00000127954, ENSG00000189056, ENSG00000134259, ENSG00000162998, ENSG00000133083, ENSG00000112175, ENSG00000106565

GOTERM_BP_ALL	GO:0048869~cellular developmental process	30	19.35	9.53E-05	125	850	7505	2.12	0.1083103	0.0095076	0.153986	ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000112280, ENSG00000077063, ENSG00000006327, ENSG00000179542, ENSG00000159307, ENSG00000106538, ENSG00000182752, ENSG00000118785, ENSG00000196878, ENSG00000111245, ENSG00000145675, ENSG00000104332, ENSG00000153902, ENSG00000146674, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000054938, ENSG00000182580, ENSG00000127954, ENSG00000189056, ENSG00000134259, ENSG00000162998, ENSG00000133083, ENSG00000112175, ENSG00000106565
GOTERM_BP_ALL	GO:0048513~organ development	30	19.35	1.99E-04	125	886	7505	2.03	0.212504	0.0182089	0.32063	ENSG00000187957, ENSG00000128342, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000112280, ENSG00000077063, ENSG00000188064, ENSG00000006327, ENSG00000107984, ENSG00000152270, ENSG00000159307, ENSG00000118785, ENSG00000196878, ENSG00000111245, ENSG00000145675, ENSG00000106366, ENSG00000104332, ENSG00000074181, ENSG00000176887, ENSG00000048052, ENSG00000054938, ENSG00000166923, ENSG00000092054, ENSG00000134363, ENSG00000189056, ENSG00000133083, ENSG00000112175, ENSG00000106565, ENSG00000114270
GOTERM_BP_ALL	GO:0009653~anatomical structure morphogenesis	22	14.19	0.002486	125	660	7505	2.00	0.9499364	0.1049771	3.945455	ENSG00000034971, ENSG00000138449, ENSG00000111245, ENSG00000151150, ENSG00000106366, ENSG00000128342, ENSG00000104332, ENSG00000120149, ENSG00000052850, ENSG00000074181, ENSG00000112280, ENSG00000166923, ENSG00000188064, ENSG00000092054, ENSG00000006327, ENSG00000182580, ENSG00000179542, ENSG00000134363, ENSG00000107984, ENSG00000189056, ENSG00000133083, ENSG00000106565

Annotation Cluster 2 Enrichment Score: **3.7785134419205586**

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0006954~inflammatory response	13	8.39	1.58E-06	125	132	7505	5.91	0.0019018	3.17E-04	0.002559	ENSG00000159307, ENSG00000196136, ENSG00000134259, ENSG00000128284, ENSG00000050628, ENSG00000173198, ENSG00000123838, ENSG00000118785, ENSG00000000971, ENSG00000196352, ENSG00000048052, ENSG00000123610, ENSG00000125730
GOTERM_BP_ALL	GO:0006952~defense response	16	10.32	2.35E-06	125	216	7505	4.45	0.0028258	4.04E-04	0.003804	ENSG00000158270, ENSG00000196136, ENSG00000123838, ENSG00000173198, ENSG00000048052, ENSG00000125730, ENSG00000056736, ENSG00000159307, ENSG00000134259, ENSG00000128284, ENSG00000118785, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000104783, ENSG00000123610
GOTERM_BP_ALL	GO:0009611~response to wounding	16	10.32	9.05E-06	125	241	7505	3.99	0.0108307	0.0013603	0.014638	ENSG00000106366, ENSG00000095752, ENSG00000196136, ENSG00000123838, ENSG00000173198, ENSG00000074181, ENSG00000048052, ENSG00000125730, ENSG00000159307, ENSG00000134259, ENSG00000128284, ENSG00000118785, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000123610
GOTERM_BP_ALL	GO:0009605~response to external stimulus	19	12.26	2.07E-04	125	427	7505	2.67	0.2206014	0.0176448	0.334478	ENSG00000106366, ENSG00000095752, ENSG00000196136, ENSG00000123838, ENSG00000173198, ENSG00000074181, ENSG00000180616, ENSG00000145824, ENSG00000048052, ENSG00000125730, ENSG00000113739, ENSG00000159307, ENSG00000134259, ENSG00000128284, ENSG00000118785, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000123610
GOTERM_BP_ALL	GO:0002526~acute inflammatory response	6	3.87	8.18E-04	125	45	7505	8.01	0.6261696	0.0480071	1.314	ENSG00000196136, ENSG00000123838, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0050896~response to stimulus	39	25.16	0.00512	125	1547	7505	1.51	0.9979185	0.1617339	7.965363	ENSG00000095752, ENSG00000091831, ENSG00000095752, ENSG00000196136, ENSG00000120149, ENSG00000205358, ENSG00000180616, ENSG00000164949, ENSG00000145824, ENSG00000077063, ENSG00000056736, ENSG00000152270, ENSG00000159307, ENSG00000118785, ENSG00000050628, ENSG00000000971, ENSG00000120875, ENSG00000196352, ENSG00000149968, ENSG00000123610, ENSG00000158270, ENSG00000145675, ENSG00000106366, ENSG00000173198, ENSG00000123838, ENSG00000074181, ENSG00000106089, ENSG00000048052, ENSG00000113739, ENSG00000125730, ENSG00000082074, ENSG00000092054, ENSG00000189056, ENSG00000134259, ENSG00000128284, ENSG00000198848, ENSG00000124731, ENSG00000104783, ENSG00000164116
GOTERM_BP_ALL	GO:0006950~response to stress	21	13.55	0.121556	125	922	7505	1.37	1	0.7332109	87.70417	ENSG00000158270, ENSG00000106366, ENSG00000095752, ENSG00000196136, ENSG00000123838, ENSG00000173198, ENSG00000074181, ENSG00000048052, ENSG00000125730, ENSG00000056736, ENSG00000092054, ENSG00000159307, ENSG00000189056, ENSG00000134259, ENSG00000128284, ENSG00000118785, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000104783, ENSG00000123610

Annotation Cluster 3 Enrichment Score: **2.1277725963951553**

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0051239~regulation of multicellular organismal pr	19	12.26	4.50E-04	125	455	7505	2.51	0.4181255	0.031351	0.725286	ENSG00000111245, ENSG00000106366, ENSG00000128342, ENSG00000104332, ENSG00000107623, ENSG00000146674, ENSG00000144857, ENSG00000074181, ENSG00000180616, ENSG00000106089, ENSG00000048052, ENSG00000188064, ENSG00000165973, ENSG00000092054, ENSG00000006327, ENSG00000134363, ENSG00000134259, ENSG00000118785, ENSG00000164116
GOTERM_BP_ALL	GO:0050793~regulation of developmental process	15	9.68	0.003596	125	377	7505	2.39	0.9868899	0.134527	5.66012	ENSG00000128342, ENSG00000106366, ENSG00000104332, ENSG00000107623, ENSG00000146674, ENSG00000144857, ENSG00000074181, ENSG00000048052, ENSG00000105357, ENSG00000188064, ENSG00000165973, ENSG00000006327, ENSG00000134363, ENSG00000134259, ENSG00000118785
GOTERM_BP_ALL	GO:0060284~regulation of cell development	7	4.52	0.009545	125	110	7505	3.82	0.9999903	0.2452892	14.36761	ENSG00000006327, ENSG00000134259, ENSG00000146674, ENSG00000118785, ENSG00000144857, ENSG00000074181, ENSG00000048052

GOTERM_BP_ALL	GO:0051094~positive regulation of developmental prc	8	5.16	0.013173	125	153	7505	3.14	0.9999999	0.2878191	19.30163	ENSG00000188064, ENSG00000006327, ENSG00000134363, ENSG00000128342, ENSG00000134259, ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0045595~regulation of cell differentiation	11	7.10	0.014304	125	272	7505	2.43	1	0.3030797	20.78397	ENSG00000188064, ENSG00000165973, ENSG00000006327, ENSG00000134363, ENSG00000128342, ENSG00000134259, ENSG00000146674, ENSG00000118785, ENSG00000144857, ENSG00000074181, ENSG00000048052
GOTERM_BP_ALL	GO:0045597~positive regulation of cell differentiation	6	3.87	0.05879	125	127	7505	2.84	1	0.5979183	62.46213	ENSG00000188064, ENSG00000006327, ENSG00000128342, ENSG00000134259, ENSG00000146674, ENSG00000144857

Annotation Cluster 4
Enrichment Score: 2.0142681456794795

Category	Term	Count	%	PValue	List Tot	Pop H	Pop Tot	Fold	Enrichme	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0015698~inorganic anion transport	5	3.23	0.004098	125	40	7505	7.51	0.9928416	0.1352186	6.424386	ENSG00000077063, ENSG00000091137, ENSG00000050628, ENSG00000112280, ENSG00000169583	
GOTERM_BP_ALL	GO:0006811~ion transport	12	7.74	0.011062	125	302	7505	2.39	0.9999985	0.2572324	16.46364	ENSG00000077063, ENSG00000138449, ENSG00000162687, ENSG00000006071, ENSG00000091137, ENSG00000127954, ENSG00000173198, ENSG00000050628, ENSG00000112280, ENSG00000169583, ENSG00000104783, ENSG00000129244	
GOTERM_BP_ALL	GO:0006820~anion transport	5	3.23	0.019991	125	63	7505	4.77	1	0.3519608	27.86037	ENSG00000077063, ENSG00000091137, ENSG00000050628, ENSG00000112280, ENSG00000169583	

Annotation Cluster 5
Enrichment Score: 1.4542730044466008

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0002526~acute inflammatory response	6	3.87	8.18E-04	125	45	7505	8.01	0.6261696	0.0480071	1.314	ENSG00000196136, ENSG00000123838, ENSG00000050628, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0051605~protein maturation by peptide bond cle	6	3.87	8.18E-04	125	45	7505	8.01	0.6261696	0.0480071	1.314	ENSG00000187957, ENSG00000134259, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0006959~humoral immune response	5	3.23	0.001225	125	29	7505	10.35	0.7710146	0.0620805	1.962097	ENSG00000123838, ENSG00000000971, ENSG00000124731, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0006956~complement activation	4	2.58	0.002527	125	17	7505	14.13	0.9523687	0.1030218	4.009743	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002541~activation of plasma proteins involved in	4	2.58	0.002997	125	18	7505	13.34	0.9729543	0.1170534	4.737275	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0016485~protein processing	6	3.87	0.003715	125	63	7505	5.72	0.988631	0.1344715	5.840652	ENSG00000187957, ENSG00000134259, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0051604~protein maturation	6	3.87	0.006574	125	72	7505	5.00	0.9996421	0.1884584	10.11784	ENSG00000187957, ENSG00000134259, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0045087~innate immune response	5	3.23	0.017958	125	61	7505	4.92	1	0.3424481	25.4018	ENSG00000158270, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0006955~immune response	10	6.45	0.018482	125	242	7505	2.48	1	0.3451999	26.04234	ENSG00000158270, ENSG00000082074, ENSG00000128342, ENSG00000123838, ENSG00000000971, ENSG00000164949, ENSG00000124731, ENSG00000196352, ENSG00000145824, ENSG00000125730
GOTERM_BP_ALL	GO:0006958~complement activation, classical pathwa	3	1.94	0.021643	125	14	7505	12.87	1	0.3599128	29.80225	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002455~humoral immune response mediated by	3	1.94	0.024707	125	15	7505	12.01	1	0.394433	33.27343	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002253~activation of immune response	4	2.58	0.037775	125	45	7505	5.34	1	0.4991288	46.3521	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002376~immune system process	13	8.39	0.046964	125	424	7505	1.84	1	0.542504	54.06285	ENSG00000158270, ENSG00000082074, ENSG00000145675, ENSG00000128342, ENSG00000095752, ENSG00000123838, ENSG00000000971, ENSG00000164949, ENSG00000124731, ENSG00000196352, ENSG00000145824, ENSG00000048052, ENSG00000125730
GOTERM_BP_ALL	GO:0050778~positive regulation of immune response	4	2.58	0.082527	125	62	7505	3.87	1	0.6601819	75.16473	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0016064~immunoglobulin mediated immune resp	3	1.94	0.092338	125	31	7505	5.81	1	0.6774698	79.12811	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0019724~B cell mediated immunity	3	1.94	0.092338	125	31	7505	5.81	1	0.6774698	79.12811	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002252~immune effector process	4	2.58	0.102021	125	68	7505	3.53	1	0.7017546	82.45163	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002449~lymphocyte mediated immunity	3	1.94	0.146731	125	41	7505	4.39	1	0.7775585	92.3168	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0048583~regulation of response to stimulus	7	4.52	0.163248	125	223	7505	1.88	1	0.7957091	94.39915	ENSG00000166923, ENSG00000106366, ENSG00000123838, ENSG00000118785, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002250~adaptive immune response	3	1.94	0.16412	125	44	7505	4.09	1	0.7952067	94.49279	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002460~adaptive immune response based on sor	3	1.94	0.16412	125	44	7505	4.09	1	0.7952067	94.49279	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002443~leukocyte mediated immunity	3	1.94	0.175909	125	46	7505	3.92	1	0.808085	95.62298	ENSG00000123838, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002682~regulation of immune system process	6	3.87	0.185226	125	183	7505	1.97	1	0.8129496	96.35815	ENSG00000166923, ENSG00000128342, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0050776~regulation of immune response	4	2.58	0.228806	125	100	7505	2.40	1	0.8599518	98.50291	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0002684~positive regulation of immune system pr	4	2.58	0.255321	125	106	7505	2.27	1	0.881924	99.1498	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0048584~positive regulation of response to stimul	4	2.58	0.273237	125	110	7505	2.18	1	0.8954919	99.42656	ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730
GOTERM_BP_ALL	GO:0006508~proteolysis	12	7.74	0.472707	125	631	7505	1.14	1	0.9761858	99.9968	ENSG00000187957, ENSG00000114737, ENSG00000166033, ENSG00000134259, ENSG00000182752, ENSG00000138316, ENSG00000123838, ENSG00000000971, ENSG00000196352, ENSG00000125730, ENSG00000149968, ENSG00000077274

Annotation Cluster 6
Enrichment Score: 1.4501933083743366

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0060284~regulation of cell development	7	4.52	0.009545	125	110	7505	3.82	0.9999903	0.2452892	14.36761	ENSG00000006327, ENSG00000134259, ENSG00000146674, ENSG00000118785, ENSG00000144857, ENSG00000074181, ENSG00000048052
GOTERM_BP_ALL	GO:0051094~positive regulation of developmental prc	8	5.16	0.013173	125	153	7505	3.14	0.9999999	0.2878191	19.30163	ENSG00000188064, ENSG00000006327, ENSG00000134363, ENSG00000128342, ENSG00000134259, ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0048742~regulation of skeletal muscle fiber devel	3	1.94	0.031323	125	17	7505	10.60	1	0.4553905	40.2289	ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0051153~regulation of striated muscle cell differer	3	1.94	0.034864	125	18	7505	10.01	1	0.4867669	43.66581	ENSG00000146674, ENSG00000144857, ENSG00000048052

GOTERM_BP_ALL	GO:0048641~regulation of skeletal muscle tissue deve	3	1.94	0.042381	125	20	7505	9.01	1	0.5299992	50.35749	ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0051147~regulation of muscle cell differentiation	3	1.94	0.050442	125	22	7505	8.19	1	0.5640426	56.70044	ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0048634~regulation of muscle development	3	1.94	0.092338	125	31	7505	5.81	1	0.6774698	79.12811	ENSG00000146674, ENSG00000144857, ENSG00000048052
GOTERM_BP_ALL	GO:0016202~regulation of striated muscle tissue deve	3	1.94	0.092338	125	31	7505	5.81	1	0.6774698	79.12811	ENSG00000146674, ENSG00000144857, ENSG00000048052

Annotation Cluster 7 **Enrichment Score: 1.4149409296845732**

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0046883~regulation of hormone secretion	5	3.23	6.86E-04	125	25	7505	12.01	0.5621919	0.0448506	1.104201	ENSG00000134363, ENSG00000152270, ENSG00000128342, ENSG00000095752, ENSG00000106089
GOTERM_BP_ALL	GO:0051046~regulation of secretion	7	4.52	9.96E-04	125	70	7505	6.00	0.698579	0.0530521	1.5992	ENSG00000134363, ENSG00000152270, ENSG00000128342, ENSG00000095752, ENSG00000134259, ENSG00000106089, ENSG00000104783
GOTERM_BP_ALL	GO:0032879~regulation of localization	13	8.39	0.005154	125	311	7505	2.51	0.9980039	0.1585946	8.01713	ENSG00000166923, ENSG00000134363, ENSG00000152270, ENSG00000091137, ENSG00000145675, ENSG00000128342, ENSG00000095752, ENSG00000134259, ENSG00000146674, ENSG00000106089, ENSG00000048052, ENSG00000104783, ENSG00000125730
GOTERM_BP_ALL	GO:0046888~negative regulation of hormone secretio	3	1.94	0.005386	125	7	7505	25.73	0.9984925	0.161049	8.363647	ENSG00000134363, ENSG00000128342, ENSG00000095752
GOTERM_BP_ALL	GO:0060341~regulation of cellular localization	7	4.52	0.008017	125	106	7505	3.96	0.9999377	0.2150151	12.20585	ENSG00000134363, ENSG00000152270, ENSG00000128342, ENSG00000095752, ENSG00000134259, ENSG00000106089, ENSG00000104783
GOTERM_BP_ALL	GO:0051049~regulation of transport	9	5.81	0.017472	125	200	7505	2.70	1	0.3401682	24.80198	ENSG00000134363, ENSG00000152270, ENSG00000145675, ENSG00000128342, ENSG00000095752, ENSG00000134259, ENSG00000106089, ENSG00000104783, ENSG00000125730
GOTERM_BP_ALL	GO:0051048~negative regulation of secretion	3	1.94	0.021643	125	14	7505	12.87	1	0.3599128	29.80225	ENSG00000134363, ENSG00000128342, ENSG00000095752
GOTERM_BP_ALL	GO:0051051~negative regulation of transport	3	1.94	0.279439	125	63	7505	2.86	1	0.8976057	99.50078	ENSG00000134363, ENSG00000128342, ENSG00000095752
GOTERM_BP_ALL	GO:0008284~positive regulation of cell proliferation	4	2.58	0.746038	125	233	7505	1.03	1	0.9988052	100	ENSG00000128342, ENSG00000095752, ENSG00000134259, ENSG00000122756
GOTERM_BP_ALL	GO:0006357~regulation of transcription from RNA pol 6	6	3.87	0.879122	125	455	7505	0.79	1	0.999924	100	ENSG00000134363, ENSG00000128342, ENSG00000095752, ENSG00000052850, ENSG00000176887, ENSG00000048052
GOTERM_BP_ALL	GO:0006355~regulation of transcription, DNA-depend	8	5.16	0.996652	125	940	7505	0.51	1	1	100	ENSG00000134363, ENSG00000128342, ENSG00000091831, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000176887, ENSG00000048052
GOTERM_BP_ALL	GO:0051252~regulation of RNA metabolic process	8	5.16	0.997572	125	966	7505	0.50	1	1	100	ENSG00000134363, ENSG00000128342, ENSG00000091831, ENSG00000095752, ENSG00000120149, ENSG00000052850, ENSG00000176887, ENSG00000048052

Annotation Cluster 8 **Enrichment Score: 1.3615089826009084**

Category	Term	Count	%	PValue	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR	Genes
GOTERM_BP_ALL	GO:0007399~nervous system development	23	14.84	5.91E-05	125	538	7505	2.57	0.0686225	0.0064419	0.09552	ENSG00000102466, ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000168546, ENSG00000172348, ENSG00000153902, ENSG00000066382, ENSG00000176887, ENSG00000074181, ENSG00000122756, ENSG00000077063, ENSG00000166923, ENSG00000165973, ENSG00000179542, ENSG0000006327, ENSG00000182580, ENSG00000107984, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000150938, ENSG00000118785
GOTERM_BP_ALL	GO:0022008~neurogenesis	14	9.03	0.001263	125	299	7505	2.81	0.7813176	0.0613747	2.022751	ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000153902, ENSG00000176887, ENSG00000074181, ENSG00000077063, ENSG0000006327, ENSG00000182580, ENSG00000179542, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000118785
GOTERM_BP_ALL	GO:0048699~generation of neurons	13	8.39	0.001777	125	273	7505	2.86	0.8822809	0.0820186	2.835064	ENSG00000151150, ENSG00000187957, ENSG00000128342, ENSG00000153902, ENSG00000074181, ENSG00000077063, ENSG00000179542, ENSG0000006327, ENSG00000182580, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000118785
GOTERM_BP_ALL	GO:0030182~neuron differentiation	9	5.81	0.019445	125	204	7505	2.65	1	0.3543314	27.20798	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000128342, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000153902, ENSG00000074181
GOTERM_BP_ALL	GO:0048666~neuron development	8	5.16	0.0198	125	166	7505	2.89	1	0.3543031	27.63246	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000128342, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000153902
GOTERM_BP_ALL	GO:0048468~cell development	11	7.10	0.037182	125	318	7505	2.08	1	0.4987464	45.81447	ENSG00000182580, ENSG00000179542, ENSG00000111245, ENSG00000187957, ENSG00000151150, ENSG00000128342, ENSG00000189056, ENSG00000134259, ENSG00000133083, ENSG00000153902, ENSG00000176887
GOTERM_BP_ALL	GO:0031175~neuron projection development	6	3.87	0.065403	125	131	7505	2.75	1	0.6204236	66.50761	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000189056, ENSG00000134259, ENSG00000133083
GOTERM_BP_ALL	GO:0007409~axonogenesis	5	3.23	0.074061	125	96	7505	3.13	1	0.6384014	71.18753	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000189056, ENSG00000133083
GOTERM_BP_ALL	GO:0048667~cell morphogenesis involved in neuron d	5	3.23	0.085618	125	101	7505	2.97	1	0.6593043	76.48369	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000189056, ENSG00000133083
GOTERM_BP_ALL	GO:0048812~neuron projection morphogenesis	5	3.23	0.105813	125	109	7505	2.75	1	0.7056919	83.6125	ENSG00000182580, ENSG00000179542, ENSG00000151150, ENSG00000189056, ENSG00000133083
GOTERM_BP_ALL	GO:0006928~cell motion	8	5.16	0.128727	125	255	7505	1.88	1	0.7487842	89.23056	ENSG00000077063, ENSG00000182580, ENSG0000006327, ENSG00000196754, ENSG00000187957, ENSG00000151150, ENSG00000189056, ENSG00000133083