

Category	Term	Count	%	PValue	Genes	List Total	Pop Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR
GOTERM_BP_DIRECT	GO:0045944-positive regulation of transcription from RNA polymerase II promoter	70	15.11879	8.36E-15	CNTN2, ZNF292, THRB, FOXA2, TBK1, M	427	981	16792	2.806102839	2.33E-11	2.33E-11	1.49E-11
GOTERM_BP_DIRECT	GO:0043066-negative regulation of apoptotic process	39	8.4233261	1.17E-10	MTDH, MCL1, XIAP, BCLX, FOXO1, PTEN	427	455	16792	3.0759451	3.27E-07	1.64E-07	2.09E-07
GOTERM_BP_DIRECT	GO:0043122-negative regulation of transcription from RNA polymerase II promoter	50	10.79599	3.06E-10	MTDH, MCL1, XIAP, BCLX, FOXO1, PTEN, C	427	720	16792	2.7559397	8.58E-07	2.98E-07	3.00E-07
GOTERM_BP_DIRECT	GO:0045945-positive regulation of transcription, DNA-templated	41	6.7529929	3.32E-09	ZIP3, ZIP4, FGF2, CBL, CRLE3, MTF80, FOX	427	515	16792	2.0577779	9.83E-07	1.97E-07	5.93E-07
GOTERM_BP_DIRECT	GO:0008284-positive regulation of cell proliferation	35	7.5593952	3.5E-08	EZF3, FGFBP, PTEN, IL3RA, TSHZ	427	466	16792	2.953633997	9.87E-05	1.97E-05	6.31E-05
GOTERM_BP_DIRECT	GO:0043575-positive regulation of neuron apoptotic process	10	2.1598272	1.05E-06	DLC1, CYP1B1, BAP1, ZEB1, SRF, PTEN, C	427	43	16792	9.14547138	0.002931064	4.89E-04	0.001875309
GOTERM_BP_DIRECT	GO:0008285-negative regulation of cell proliferation	29	6.2634989	1.10E-06	DLC1, CYP1B1, BAP1, ZEB1, SRF, PTEN, C	427	396	16792	2.8789997	0.003068831	4.39E-04	0.001963875
GOTERM_BP_DIRECT	GO:0007265-Ras protein signal transduction	12	2.5917927	1.39E-06	PLD1, CDKN1, KRAS, CRKL, GRB2, MAJ	427	70	16792	6.74151890	0.003869596	4.85E-04	0.002477307
GOTERM_BP_DIRECT	GO:0008366-negative regulation of gene expression	32	4.7514771	7.25E-06	COP9, NFE2L1, ROCK2, MAP3K1, MTF80, FOX	427	513	16792	3.345214348	0.002026262	0.001113856	0.000866326
GOTERM_BP_DIRECT	GO:0001666-response to hypoxia	17	3.6717063	8.16E-06	LDHA, CYP1A1, ACNAT, CREB1, SMAD4	427	172	16792	3.288825326	0.022071388	0.014577055	0.014577055
GOTERM_BP_DIRECT	GO:0016032-viral process	23	4.9677602	8.41E-06	VAC14, GRB2, CREB1, RBM15B, TP53, AI	427	299	16792	3.025040533	0.023237681	0.019574099	0.015022206
GOTERM_BP_DIRECT	GO:0006357-regulation of transcription from RNA polymerase II promoter	29	6.2634989	8.68E-06	HMGFB1, FOXA2, MTF80, DEK, ZEB1, FOXC	427	441	16792	2.586032383	0.023969913	0.018649557	0.015591316
GOTERM_BP_DIRECT	GO:0007173-epidemiological growth factor receptor signaling pathway	10	2.1598272	1.05E-05	EGFR, PDPK1, Kras, PLCG1, GRB2, PIK3	427	56	16792	17.022415524	0.029024198	0.010216162	0.018181724
GOTERM_BP_DIRECT	GO:0007050-cell cycle arrest	15	3.2397408	1.43E-05	TP53, SMAD3, CDK4, CTCL2, TFB2, NG	427	141	16792	4.183566695	0.030900211	0.026547476	0.025475378
GOTERM_BP_DIRECT	GO:0007051-cell cycle arrest	8	7.7278618	1.53E-05	CDKN1A, CDKN1B, CDKN1C, CDKN1D, PLK1, CDKN1E	427	33	16792	3.08521992	0.024564915	0.025553937	0.027792888
GOTERM_BP_DIRECT	GO:0048015-phosphatidylinositol-mediated signaling	8	1.3778754	1.56E-05	EGFR, EGFR, FGFR, FGFR, PIK3CA	427	106	16792	4.822861192	0.042564915	0.025553937	0.027792888
GOTERM_BP_DIRECT	GO:0001837-transmembrane transition	8	1.7278618	1.91E-05	NOTCH1, GSK3B, FOXF2, HGF, SNAIL2	427	34	16792	2.25035615	0.052119849	0.029909317	0.014916239
GOTERM_BP_DIRECT	GO:0001701-in utero embryonic development	17	3.6717063	2.33E-05	GNAL1, SMAD4, GI1A, SMAD3, KEAP1, N	427	187	16792	3.575047903	0.036152698	0.034327532	0.014674271
GOTERM_BP_DIRECT	GO:0006974-cellular response to DNA damage stimulus	18	3.8788693	2.36E-05	XIAP, CNPNS, TP53BP1, ZMAT3, TP53, FC	427	206	16792	3.4031707	0.063931543	0.032978783	0.024492547
GOTERM_BP_DIRECT	GO:0007050-damage response, signal transduction by p53 class mediator	6	1.2958962	2.50E-05	ATR, TP53, NDRG1, FOXO3, MDM4, SE	427	15	16792	15.73021077	0.067467206	0.00332071	0.046426248
GOTERM_BP_DIRECT	GO:0003016-damage response, signal transduction by p53 class mediator	12	2.5917927	3.11E-05	ZFAT, ZFP639, DNM1, ERK1, GATA6, BCL	427	96	16792	4.915968067	0.038187206	0.015575772	0.015575772
GOTERM_BP_DIRECT	GO:0003036-damage response, signal transduction by p53 class mediator	6	1.2958962	3.15E-05	ATR, TP53, NDRG1, FOXO3, MDM4, SE	427	17	16792	1.1283774	0.050932589	0.022446711	0.014577055
GOTERM_BP_DIRECT	GO:00016471-cell migration	24	5.4835853	6.40E-05	EGFR, MORF4L1, CDV3, CYP1A1, FSCN1	427	366	16792	2.578723078	0.165314435	0.07500902	0.115094722
GOTERM_BP_DIRECT	GO:0008283-cell migration	15	3.2397408	1.28E-04	DPDK1, PDK1, F1, PLTG1, ITAMI, PO	427	172	16792	3.492551767	0.030920348	0.014217585	0.024884254
GOTERM_BP_DIRECT	GO:0008286-insulin receptor signaling pathway	10	2.1598272	1.55E-04	IGFR, EPHB2, FGFR, PIK3CA, ATPI6	427	78	16792	5.047134222	0.351864877	0.016540754	0.27670812
GOTERM_BP_DIRECT	GO:0010178-regulation of epithelial to mesenchymal transition	7	1.511879	1.59E-04	NOTCH1, EZH2, SMAD3, SMAD2	427	33	16792	3.4178748	0.359607049	0.016730756	0.284385913
GOTERM_BP_DIRECT	GO:0008287-damage response, signal transduction by p53 class mediator res	9	9.4938445	1.64E-04	TP53BP1, CDKN1A, BCL2, CDKN1B, EP300, NI	427	62	16792	7.078554423	0.367281782	0.016214694	0.29246871
GOTERM_BP_DIRECT	GO:0009049-damage response to DNA damage	10	2.1598272	1.68E-04	MTDH, MCL1, TP53BP1, ZMAT3, TP53, FC	427	115	16792	3.450554324	0.368712206	0.016214694	0.29246871
GOTERM_BP_DIRECT	GO:0009192-earliest protein signaling pathway in absence of ligand	7	1.511879	1.89E-04	EGFR, ERBB2, ERBB3, ERBB4, ERBB5, ERBB6	427	34	16792	8.09643205	0.411218317	0.017010595	0.337988209
GOTERM_BP_DIRECT	GO:0005924-cellular response to vascular endothelial growth factor stimulus	6	1.2958962	2.07E-04	VEGFR, ERBB2, ERBB3, ERBB4, ERBB5, ERBB6	427	23	16792	1.205883311	0.484161208	0.021227026	0.422077563
GOTERM_BP_DIRECT	GO:00030355-positive regulation of cell migration	13	2.3739408	2.39E-04	DCBL2, ACVR1B, CYP1A1, FSCN1, SMAD3, H	427	121	16792	3.02055258	0.51758531	0.022446711	0.462332398
GOTERM_BP_DIRECT	GO:0006915-apoptotic process	30	6.4794808	2.87E-04	DLC1, PHLP1, XIAP, CADM1, STK17, F	427	567	16792	0.080715711	0.552200057	0.023352673	0.15023577
GOTERM_BP_DIRECT	GO:0007232-signaling pathway	12	2.5917927	3.02E-04	EP300, NFKB1, EP300, NFKB1, ERBB2, ERBB3	427	127	16792	3.7570795	0.66077952	0.014577055	0.27792888
GOTERM_BP_DIRECT	GO:0001944-positive regulation of protein phosphorylation	8	1.7278618	4.07E-04	BML, EGFR, WNT1, CDKN1A, JUN, BTC	427	54	16792	1.82650399	0.679955129	0.030224945	0.725227343
GOTERM_BP_DIRECT	GO:0030306-cellular response to DNA damage	12	2.5917927	4.78E-04	DLC1, PEN1, RND3, MTSD1, FMNL3, PPDI	427	130	16792	3.630048644	0.737587076	0.034593686	0.81189382
GOTERM_BP_DIRECT	GO:00032355-response to estrogen	10	2.1598272	4.99E-04	DNM1TA, CDKN1A, CDKN1B, EZH2, MBP1, MBP2	427	91	16792	7.421348674	0.752373076	0.031551768	0.887924027
GOTERM_BP_DIRECT	GO:0001570-epithelial-mesenchymal transition	7	1.511879	1.89E-04	EGFR, ERBB2, ERBB3, ERBB4, ERBB5, ERBB6	427	27	16792	1.205883311	0.911739005	0.023253779	0.337988209
GOTERM_BP_DIRECT	GO:0001777-regulation of neural precursor cell proliferation	17	3.6717063	2.07E-04	TNFRI01A, CDKN1A, BCL2, CDKN1B, ERBB2, ERBB3, ERBB4, ERBB5, ERBB6	427	115	16792	3.025040533	0.917343097	0.023253779	0.337988209
GOTERM_BP_DIRECT	GO:00000777-DNA damage checkpoint	6	1.2958962	2.08E-04	DNMT3A, DNMT3B, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC7, ERCC8, ERCC9, ERCC10, ERCC11, ERCC12, ERCC13, ERCC14, ERCC15, ERCC16, ERCC17, ERCC18, ERCC19, ERCC20, ERCC21, ERCC22, ERCC23, ERCC24, ERCC25, ERCC26, ERCC27, ERCC28, ERCC29, ERCC30, ERCC31, ERCC32, ERCC33, ERCC34, ERCC35, ERCC36, ERCC37, ERCC38, ERCC39, ERCC40, ERCC41, ERCC42, ERCC43, ERCC44, ERCC45, ERCC46, ERCC47, ERCC48, ERCC49, ERCC50, ERCC51, ERCC52, ERCC53, ERCC54, ERCC55, ERCC56, ERCC57, ERCC58, ERCC59, ERCC60, ERCC61, ERCC62, ERCC63, ERCC64, ERCC65, ERCC66, ERCC67, ERCC68, ERCC69, ERCC70, ERCC71, ERCC72, ERCC73, ERCC74, ERCC75, ERCC76, ERCC77, ERCC78, ERCC79, ERCC80, ERCC81, ERCC82, ERCC83, ERCC84, ERCC85, ERCC86, ERCC87, ERCC88, ERCC89, ERCC90, ERCC91, ERCC92, ERCC93, ERCC94, ERCC95, ERCC96, ERCC97, ERCC98, ERCC99, ERCC100, ERCC101, ERCC102, ERCC103, ERCC104, ERCC105, ERCC106, ERCC107, ERCC108, ERCC109, ERCC110, ERCC111, ERCC112, ERCC113, 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GOTERM_BP_DIRECT GO:0001658--branching involved in ureteric bud morphogenesis	5	1.0799136	0.021394	WNT1, LHX1, BCL2, SMAD4, CTNNB1	427	42	16792	4.681610349	1	0.361033109	32.0476115
GOTERM_BP_DIRECT GO:0043123--positive regulation of λ -kappaB kinase/NF-kappaB signaling	10	2.1598272	0.0217992	MTDH, TNFRSF10B, MAP3K3, TRIM8, TB	427	161	16792	2.442579313	1	0.364636091	32.5485456
GOTERM_BP_DIRECT GO:0070107--cytoskeleton organization	10	2.1598272	0.0217992	YEAT4, FMNL3, BRWL1, WASF3, TUBB	427	161	16792	2.442579313	1	0.364636091	32.5485456
GOTERM_BP_DIRECT GO:0001658--branching involved in ureteric bud morphogenesis	7	1.51879	0.0212001	MCF2, CTDSP1, XKR10, TBL1, UBE2D1	427	86	16792	3.075303493	1	0.363947601	32.8765783
GOTERM_BP_DIRECT GO:0054548--positive regulation of erythocyte differentiation	4	0.8639399	0.0221001	PLD1, ERB1, ET51, MAPK1, FOXO3	427	24	16792	6.554254489	1	0.364147858	32.9182121
GOTERM_BP_DIRECT GO:0048870--cell motility	4	0.8639399	0.0221001	PLD1, ERB1, ET51, MAPK1, FOXO3	427	24	16792	6.554254489	1	0.364147858	32.9182121
GOTERM_BP_DIRECT GO:0090909--negative regulation of canonical Wnt signaling pathway	5	1.0799136	0.0233918	CYLD, NOTCH1, PSMD11, MAPK14, GSK3	427	163	16792	2.412690914	1	0.378830789	34.4837451
GOTERM_BP_DIRECT GO:0010629--negative regulation of gene expression	9	1.9438445	0.0236072	ACVR1B, CDKN1A, TBK1, CREB1, GJA1,	427	137	16792	2.583423777	1	0.379433474	34.74145165
GOTERM_BP_DIRECT GO:2000134--negative regulation of G1/S transition of mitotic cell cycle	4	0.8639399	0.0246521	CDKN1A, BCL2, EZH2, PTEN	427	25	16792	6.292084309	1	0.390412106	35.97787714
GOTERM_BP_DIRECT GO:0032194--translational translocation by protein phosphorylation	3	0.6479482	0.0252512	CTCTN, MAPK1, HSP90AA1, MARC33, DEI	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0006983--ER overload response	3	0.6479482	0.0252512	MAPK1, HSP90AA1, MARC33, DEI	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0035265--osmotic growth	3	0.6479482	0.0252512	BCL2, NLGN4X, SMAD2	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0045616--regulation of keratinocyte differentiation	3	0.6479482	0.0252512	ZEP53L1, ROCK2, ERFRI1	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0090909--primitive streak formation	3	0.6479482	0.0252512	FOXA2, LHX1, SRF	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0003184--pulmonary valve morphogenesis	3	0.6479482	0.0252512	NOTCH2, NOTCH1, TGFBI	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0003143--regulation of myelination	3	0.6479482	0.0252512	WASF3, DCTN1, HGF	427	10	16792	11.797658088	1	0.391970203	36.5378502
GOTERM_BP_DIRECT GO:0011363--cellular response to growth factor stimulus	5	1.0799136	0.0268516	SLC11A1, HMGBL1, VEGA1, CA39, TGFBI	427	45	16792	4.365059292	1	0.410509791	38.0881676
GOTERM_BP_DIRECT GO:0032147--activation of protein kinase activity	4	0.8639399	0.0268516	TCNT2, MAPK1, ERIN, TGFBI	427	45	16792	4.365059292	1	0.410509791	38.0881676
GOTERM_BP_DIRECT GO:0002053--positive regulation of mesenchymal cell proliferation	4	0.8639399	0.0270356	SHOX2, FGFR, VEGFA, CTNNB1	427	26	16792	6.050801066	1	0.410820248	39.0757098
GOTERM_BP_DIRECT GO:0032149--positive regulation of MAPK activity	4	0.8639399	0.0270356	EGFR, CRKL, PLCG1, FGFR, VEGFA, CTNNB1	427	46	16792	4.274531797	1	0.423870303	41.7414912
GOTERM_BP_DIRECT GO:0046165--regulation of cell migration	4	0.8639399	0.0270356	MAPK1, ERIN, TGFBI, SMAD2	427	46	16792	4.274531797	1	0.423870303	41.7414912
GOTERM_BP_DIRECT GO:0006355--regulation of transcription, DNA-templated	51	11.051159	0.0287927	MOB41, LTHB1, ZBTB4, THRB, TAIDF, RBM1	427	1504	16792	1.333511884	1	0.426178845	40.58985872
GOTERM_BP_DIRECT GO:0032728--positive regulation of interferon- β production	4	0.8639399	0.0302114	PLC13P, HMGBL1, TBK1, FLOT1	427	27	16792	5.82603099	1	0.437666024	42.9131096
GOTERM_BP_DIRECT GO:0031069--hair follicle morphogenesis	4	0.8639399	0.0302114	NOTCH1, BCL2, CTNNB1, TGFBI	427	27	16792	5.82603099	1	0.437666024	42.9131096
GOTERM_BP_DIRECT GO:0032495--response to proline dipeptide	3	0.6479482	0.0303518	NOTCH2, MAPK1, ERIN, TGFBI	427	11	16792	1.251143771	1	0.437025326	43.24246192
GOTERM_BP_DIRECT GO:0002054--positive regulation of positive chemotaxis	3	0.6479482	0.0303518	TCNT2, MAPK1, ERIN, TGFBI	427	11	16792	1.251143771	1	0.437025326	43.24246192
GOTERM_BP_DIRECT GO:0035247--positive regulation of GTPase activity	3	0.6479482	0.0325212	BCL2, NLGN4X, SMAD2	427	565	16792	4.208946686	1	0.459989899	44.4096767
GOTERM_BP_DIRECT GO:0046846--phosphatidylserine phosphorylation	3	0.6479482	0.0325212	ROCK2, ET51, VEGA1, THBS1, KDR	427	94	16792	4.096409505	1	0.459811485	45.6238785
GOTERM_BP_DIRECT GO:0035176--social behavior	5	1.0799136	0.0330694	EIF4EBP2, KRAS, NLGN4X, AVPR1A, PTE	427	48	16792	5.617932419	1	0.458356483	45.3119115
GOTERM_BP_DIRECT GO:0090260--positive regulation of release of cytochrome c from mitochondria	5	0.8639399	0.0332173	MOB41, LTHB1, ZBTB4, THRB, TAIDF, RBM1	427	28	16792	5.617932419	1	0.458456843	45.3119115
GOTERM_BP_DIRECT GO:0006355--regulation of transcription, DNA-templated	51	11.051159	0.0332918	MOB41, LTHB1, ZBTB4, THRB, TAIDF, RBM1	427	1504	16792	1.333511884	1	0.462178845	40.58985872
GOTERM_BP_DIRECT GO:0032728--positive regulation of interferon- β production	4	0.8639399	0.0332918	ACVR1B, HMGBL1, TBK1, FLOT1	427	27	16792	5.82603099	1	0.437666024	42.9131096
GOTERM_BP_DIRECT GO:0011369--cellular response to epidermal growth factor	4	0.8639399	0.0332918	NOTCH1, BCL2, CTNNB1, TGFBI	427	27	16792	5.82603099	1	0.437666024	42.9131096
GOTERM_BP_DIRECT GO:0046675--T cell receptor signaling pathway	9	1.9438445	0.0335145	PPDK1, PLC13P, PLCL1, PSMD11, PMSD2	427	148	16792	4.274531797	1	0.462178845	46.22760405
GOTERM_BP_DIRECT GO:0036092--absorbption/phagocytosis-3'-nucleotides biosynthetic process	5	1.0799136	0.0335145	ACVR1B, HMGBL1, TBK1, FLOT1	427	49	16792	4.274531797	1	0.462178845	46.22760405
GOTERM_BP_DIRECT GO:0061158--URR1-mediated mRNA destabilization	3	0.6479482	0.0358207	ZEP36L1, OKL1, TRMT1	427	12	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:0048596--embryo-camptera-type eye morphogenesis	3	0.6479482	0.0358207	FOXZ1, ZEB1, CITED2	427	12	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:0035278--mRNA-mediated inhibition of translation	3	0.6479482	0.0358207	TRMT1, TNRC6A, STAT3	427	12	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:0042149--cellular response to glucarate starvation	4	0.8639399	0.0358207	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	98	16792	4.274531797	1	0.499148539	48.7745237
GOTERM_BP_DIRECT GO:0001643--cardiac septum morphogenesis	5	0.8639399	0.0358660	MOB41, LTHB1, ZBTB4, THRB, TAIDF, RBM1	427	30	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:0001713--intrinsic apoptotic signaling pathway	5	0.8639399	0.0358660	CDKN1A, CUL5, TP53, PMAPI	427	30	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:0001658--branching involved in mesenchymal transition involved in endocardial cushion	5	0.8639399	0.0358660	NCOA2, HMGBL1, TBK1, FLOT1	427	31	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:00190740--positive regulation of protein insertion into mitochondrial membrane	5	0.8639399	0.0358660	NDP1, RPL22, MAP3K3, TBL1, PMSD1, PMSD2	427	31	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:0006367--positive regulation of receptor activity	5	0.8639399	0.0358660	NDP1, RPL22, MAP3K3, TBL1, PMSD1, PMSD2	427	31	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:0006123--circumferential division	5	0.8639399	0.0358660	NDP1, RPL22, MAP3K3, TBL1, PMSD1, PMSD2	427	31	16792	5.243403591	1	0.50943524	51.48455174
GOTERM_BP_DIRECT GO:00010468--localization of gene expression	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	16792	9.831381733	1	0.476111916	47.8839659
GOTERM_BP_DIRECT GO:00010468--positive regulation of receptor activity	3	0.6479482	0.0361366	ACVR1B, HMGBL1, TBK1, FLOT1, GSK3B	427	11	1				

GOTERM_BP_DIRECT GO:0008361-regulation of cell size	3	0.6479482	0.0903805	RARG, CREB1, MSN	427	20	16792	5.89882904	1	0.703279228	81.59190734
GOTERM_BP_DIRECT GO:0001892-embryonic placenta development	3	0.6479482	0.0903805	EGFR, PKD1, CITED2	427	20	16792	5.89882904	1	0.703279228	81.59190734
GOTERM_BP_DIRECT GO:0050900-leukocyte migration	7	1.511879	0.0904229	KRAS, PLCG1, GRB2, PODXL, SHC1, MSN	427	122	16792	2.256382693	1	0.70180594	81.60722802
GOTERM_BP_DIRECT GO:0001903-endosomal vesicle formation	8	1.727709	0.0904229	EGFR, ERBB7, FLT1, FGFR2TC, ABIL2, EP	427	153	16792	2.802623402	1	0.7180594	81.2406628
GOTERM_BP_DIRECT GO:0001904-regulation of endosomal vesicle formation	4	0.8639399	0.0951529	CTNNB1, CTNNB1, CTDSP1	427	43	16792	3.658188552	1	0.77767028	82.4306628
GOTERM_BP_DIRECT GO:0030155-regulation of cell adhesion	4	0.8639399	0.0951529	ROCK2, PPP1R12A, PKD1, SRF	427	43	16792	3.658188552	1	0.717767028	82.4306628
GOTERM_BP_DIRECT GO:0051726-regulation of cell cycle	7	1.511879	0.095169	CNE2, EP300, JUN, BAPI, USP16, PTEN,	427	124	16792	2.219889474	1	0.719158105	83.940457019
GOTERM_BP_DIRECT GO:0007169-negative regulation of membrane receptor protein tyrosine kinase signaling pathway	6	1.2958896	0.0971905	EGFR, IGF1R, MTSS1, FLT1, KDR, IL31RA	427	96	16792	2.457845433	1	0.722502511	83.940457019
GOTERM_BP_DIRECT GO:0007621-negative regulation of female receptivity	2	0.4319654	0.0976886	THRB, AVPR1A	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0003219-negative regulation of vesicle formation	2	0.4319654	0.0976886	NOTCH1, SMARDC3	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0001904-regulation of endosomal vesicle formation	2	0.4319654	0.0976886	SISSM2, CTDSP1	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0044498-S-adenosylhomocysteine metabolic process	2	0.4319654	0.0976886	DNMT1A, DNMT3B	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0060334-trachea cartilage development	2	0.4319654	0.0976886	RARG, SREBF1	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0060429-epithelial development	2	0.4319654	0.0976886	LHX1, SNAI2	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0072177-mesonephric duct development	2	0.4319654	0.0976886	LHX1, PKD1	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0035522-monoubiquitinated histone H2A deubiquitination	2	0.4319654	0.0976886	BAPI, USP16	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0001904-canonical Wnt signaling pathway involved in midbrain dopaminergic neuron differentiation	2	0.4319654	0.0976886	WNT1, CTNNB1	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0061419-positive regulation of transcription from RNA polymerase II promoter	2	0.4319654	0.0976886	NOTCH1, VEGFA	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:1903347-negative regulation of biacellular tight junction assembly	2	0.4319654	0.0976886	ROCK2, IKBKB	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0007161-calcium-independent cell-matrix adhesion	2	0.4319654	0.0976886	PKD1, FN1	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0002520-immune system development	2	0.4319654	0.0976886	TROVEZ, SMAD3	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0003273-negative regulation of protein phosphorylation involved in endocardial cushion formation	2	0.4319654	0.0976886	CDH1A, MAPK14	427	4	16792	19.66276347	1	0.72222582	84.06248713
GOTERM_BP_DIRECT GO:0043154-negative regulation of cysteine-type endopeptidase activity involved in protein phosphorylation	5	1.0799136	0.0976968	XIAPI, VEGFA, HGF, THBS1, DNAB6	427	69	16792	2.849675865	1	0.72306814	84.1504748
GOTERM_BP_DIRECT GO:0097150-neuronal stem cell population maintenance	3	0.6479482	0.0982779	RAP2C, VEGFA, RASSF2	427	21	16792	5.617932419	1	0.721917161	84.247441176
GOTERM_BP_DIRECT GO:0031016-pancreas development	3	0.6479482	0.0982779	NOTCH1, FOXO1, FOXO3	427	21	16792	5.617932419	1	0.721917161	84.247441176
GOTERM_BP_DIRECT GO:0071480-cellular response to gamma radiation	3	0.6479482	0.0982779	SMAD2, TCF7L2, CTNNB1	427	21	16792	5.617932419	1	0.721917161	84.247441176
GOTERM_BP_DIRECT GO:1900182-positive regulation of protein localization to nucleus	3	0.6479482	0.0982779	CDKN1A, CHEK2, YAP1	427	21	16792	5.617932419	1	0.721917161	84.247441176
GOTERM_BP_DIRECT GO:0051894-positive regulation of focal adhesion assembly	3	0.6479482	0.0982779	TRIM8, SNAI2, TGFBR2	427	21	16792	5.617932419	1	0.721917161	84.247441176
GOTERM_BP_DIRECT GO:0042127-regulation of cell proliferation	9	1.3428445	0.0994809	TNFRSF10A, CDKN1B, TNFRSF10B, XIAP	427	185	16792	1.91313743	1	0.724905829	84.61867705

Category	Term	Count	%	PValue	Genes	List Total	Pop Hits	Pop Total	Fold Enrich	Bonferroni	Benjamini	FDR
GOTERM CC DIRECT	GO:0005654-nucleoplasm	134	28.94168	1.16E-15	MORF4L1, NRPB1, THRB, RBM	443	2784	18224	1.980407	4.83E-13	4.83E-13	1.57E-12
GOTERM CC DIRECT	GO:0005634-nucleus	206	44.49244	5.80E-14	DLC1, LDHA, TRAPP2B, TUBI	443	5415	18224	1.56498	2.52E-11	1.26E-11	8.18E-11
GOTERM CC DIRECT	GO:0005829-cytosol	140	30.23758	6.72E-12	DLC1, LDHA, NRPB1, TBK1, FC	443	3315	18224	1.737339	2.92E-09	9.748E-09	4.98E-08
GOTERM CC DIRECT	GO:0005737-cytoplasm	192	41.46868	2.84E-11	GNA13, DLC1, MTSS1, LDHA, I	443	5222	18224	1.512531	1.23E-08	3.08E-09	4.00E-08
GOTERM CC DIRECT	GO:0030529-intracellular ribonucleoprotein complex	17	3.671706	1.99E-07	SNRPA1, ACTN4, G3BP2, CASC	443	136	18224	5.142212	8.67E-05	1.73E-05	2.81E-04
GOTERM CC DIRECT	GO:0005925-focal adhesion	6	2.623499	3.59E-07	GNA13, DLC1, FERM72, GJA1,	443	391	18224	3.051134	1.56E-04	2.60E-05	5.07E-04
GOTERM CC DIRECT	GO:0005768-endosome	21	4.535637	6.35E-07	EGFR, HMGB1, PLD1, FLT1, RA	443	225	18224	3.839518	2.76E-04	3.94E-05	8.96E-04
GOTERM CC DIRECT	GO:0000790-nuclear chromatin	18	3.887689	4.97E-07	RARG, THRB, CREB1, EZH2, TI	443	193	18224	3.836676	0.002161	2.70E-04	0.007021
GOTERM CC DIRECT	GO:0005657-transcription factor complex	18	3.887689	4.97E-07	SATB2, E2F3, RARG, SMAD4, S	443	193	18224	3.836676	0.002161	2.70E-04	0.007021
GOTERM CC DIRECT	GO:0030027-lamellipodium	15	3.239741	3.65E-05	NRPB1, ARPC3, PLCG1, WASF3	443	160	18224	3.856659	0.015737	0.001761	0.051468
GOTERM CC DIRECT	GO:0048471-perinuclear region of cytoplasm	31	6.695464	2.85E-04	CCNT2, TRAPP2B, RAB3B, NI	443	621	18224	2.053373	0.116669	0.012329	0.401819
GOTERM CC DIRECT	GO:0031093-platelet alpha granule lumen	8	1.727862	3.50E-04	A1BG, ACTN4, VEGFA, IGF2, H	443	55	18224	5.983665	0.14112	0.013734	0.492518
GOTERM CC DIRECT	GO:0016605-PML body	10	2.159827	6.26E-04	ATRX, TRIM8, MKNK2, TP53, N	443	98	18224	4.197724	0.238422	0.022441	0.880077
GOTERM CC DIRECT	GO:0005730-nucleolus	37	7.991361	9.99E-04	CDV3, MTDH, CDC14B, GRB2,	443	857	18224	1.776073	0.352678	0.032901	1.401619
GOTERM CC DIRECT	GO:0030496-midbody	11	2.37581	0.0121	KIF13A, CYLD, RCC2, INCENP,	443	129	18224	3.507866	0.406948	0.036362	1.681429
GOTERM CC DIRECT	GO:0016363-nuclear matrix	9	1.943844	0.002472	XPOT, YEATS4, DNMT3A, SAT	443	97	18224	3.8169	0.659298	0.069267	3.434298
GOTERM CC DIRECT	GO:0043234-protein complex	21	4.535637	0.002688	PARD6B, ACTN4, MITF, TP53, I	443	412	18224	2.096824	0.689944	0.070574	3.729257
GOTERM CC DIRECT	GO:0032993-protein-DNA complex	11	2.37581	0.003481	MFF, CISD2, MLL1, PHB2, BCL	443	25	18224	8.22754	0.71511	0.0712	3.993383
GOTERM CC DIRECT	GO:0005741-mitochondrial outer membrane	72	15.55076	0.007142	GNA13, LDHA, NRPB1, RAB5B	443	2200	18224	1.346325	0.955752	0.151344	9.624306
GOTERM CC DIRECT	GO:0043292-contractile fiber	3	0.647948	0.011369	PPP1R12A, GJA1, DEK	443	7	18224	17.63044	0.993083	0.220179	14.90726
GOTERM CC DIRECT	GO:0016324-apical plasma membrane	15	3.239741	0.01188	EGFR, PARD6B, PLD1, MTDH, I	443	291	18224	2.1205	0.994428	0.218971	15.50227
GOTERM CC DIRECT	GO:0009986-cell surface	23	4.967903	0.013339	EGFR, CDBCDB2, HMGB1, FERN	443	542	18224	1.745699	0.997096	0.233191	17.27029
GOTERM CC DIRECT	GO:0071141-SMAD protein complex	3	0.647948	0.014917	SMAD4, SMAD3, SMAD2	443	8	18224	15.42664	0.998552	0.247423	19.11877
GOTERM CC DIRECT	GO:0015629-actin cytoskeleton	12	2.591793	0.017612	IP3, MTSS1, ACTN4, ARPC3, Z	443	218	18224	2.26446	0.99956	0.275351	22.18766
GOTERM CC DIRECT	GO:0009898-cytoplasmic side of plasma membrane	5	1.079914	0.01848	RGS2, PTPN4, IKBKB, PTEN, R	443	42	18224	4.897345	0.999701	0.277154	23.15231
GOTERM CC DIRECT	GO:0036464-cytoplasmic ribonucleoprotein granule	4	0.863931	0.021938	TUBB, ROCK2, PAPBC1, RPS4	443	25	18224	6.582032	0.999936	0.310047	26.88807
GOTERM CC DIRECT	GO:0005739-mitochondrion	45	9.719222	0.022422	APOOL, CYP1B1, MCL1, CLPB	443	1331	18224	1.390831	0.999948	0.306053	27.39715
GOTERM CC DIRECT	GO:0070062-extracellular exosome	85	18.35853	0.022537	GNA13, LDHA, CADM1, WASF	443	2811	18224	1.243936	0.999951	0.298224	27.5178
GOTERM CC DIRECT	GO:0005916-fascia adherens	3	0.647948	0.023218	GJA1, CTNNAS, CTNNB1	443	10	18224	12.34131	0.999964	0.296986	28.22217
GOTERM CC DIRECT	GO:0031234-extrinsic component of cytoplasmic side of plasma membrane	6	1.295896	0.024551	CYLD, KRAS, TIAM1, FERM72	443	68	18224	3.629797	0.99998	0.30263	29.59803
GOTERM CC DIRECT	GO:0005793-endoplasmic reticulum-Golgi intermediate compartment	6	1.295896	0.024551	HMGB1, TRAPP2B, DICER1, S	443	68	18224	3.629797	0.99998	0.30263	29.59803
GOTERM CC DIRECT	GO:0005911-cell-cell junction	10	2.159827	0.024681	CADM1, ACTN4, PLCG1, TIAM	443	172	18224	2.391727	0.999981	0.295809	29.73028
GOTERM CC DIRECT	GO:0005719-nuclear chromatin	4	0.863931	0.026922	JUN, CREB1, H2AFZ, CTNNB1	443	27	18224	6.094474	0.999993	0.310008	31.98163
GOTERM CC DIRECT	GO:0005819-spindle	8	1.727862	0.0281	CYLD, EVIS, INCENP, KLHL42	443	121	18224	2.719848	0.999996	0.313203	33.12914
GOTERM CC DIRECT	GO:0045177-apical part of cell	6	1.295896	0.0355	VCAMI, PARD6B, HFE, MSN, C	443	75	18224	3.291016	1	0.370263	39.96928
GOTERM CC DIRECT	GO:0005856-cytoskeleton	16	3.455724	0.037701	PPP1R18, WASF3, FERM72, PT1	443	371	18224	1.774133	1	0.379748	41.87434
GOTERM CC DIRECT	GO:0000164-protein phosphatase type 1 complex	3	0.647948	0.038367	PPPI1R1, SHOC2, PPP1R15B	443	13	18224	9.493315	1	0.376699	42.43958
GOTERM CC DIRECT	GO:0005721-pericentric heterochromatin	3	0.647948	0.038367	ATRX, INCENP, DNMT1	443	13	18224	9.493315	1	0.376699	42.43958
GOTERM CC DIRECT	GO:0001725-stress fiber	5	1.079914	0.041722	ACTN4, FSCN1, FERM72, SEPT	443	54	18224	3.809046	1	0.394101	45.21107
GOTERM CC DIRECT	GO:00090575-RNA polymerase II transcription factor complex	4	0.863931	0.045189	GATA4, SMAD4, STAT3, HNRN	443	33	18224	4.986388	1	0.411003	47.94389
GOTERM CC DIRECT	GO:0070435-Shc-EGFR complex	2	0.431965	0.047921	EGFR, SHC1	443	2	18224	41.1377	1	0.421739	50.00768
GOTERM CC DIRECT	GO:0071144-SMAD2-SMAD3 protein complex	2	0.431965	0.047921	SMAD3, SMAD2	443	2	18224	41.1377	1	0.421739	50.00768
GOTERM CC DIRECT	GO:0007369-beta-catenin-TCF7L2 complex	2	0.431965	0.047921	TCF7L2, CTNNB1	443	2	18224	41.1377	1	0.421739	50.00768
GOTERM CC DIRECT	GO:0005802-trans-Golgi network	8	1.727862	0.048026	RAB30, PLEKHAs, STX16, ATP	443	136	18224	2.419865	1	0.44471	50.08571
GOTERM CC DIRECT	GO:0000307-cyclin-dependent protein kinase holoenzyme complex	3	0.647948	0.050038	CDKN1A, CCND2, CDK6	443	15	18224	8.22754	1	0.41936	51.55363
GOTERM CC DIRECT	GO:0005913-cell-cell adherens junction	14	3.023758	0.051938	EGFR, LDHA, CADM1, FSCN1,	443	323	18224	1.783058	1	0.424425	52.90386
GOTERM CC DIRECT	GO:0000777-condensed chromosome kinetochore	11	2.37581	0.05292	EGFR, MTDH, LMBN1, CCND2,	443	229	18224	1.976047	1	0.423078	53.58953
GOTERM CC DIRECT	GO:0044291-cell-cell contact zone	6	1.295896	0.060354	CENPs, TP53BP1, INCENP, RAS	443	87	18224	2.837083	1	0.4598	58.47561
GOTERM CC DIRECT	GO:0045121-membrane raft	3	0.647948	0.062799	RAP2C, TIAM1, FLOT1	443	17	18224	7.259594	1	0.465768	59.97356
GOTERM CC DIRECT	GO:0071944-cell periphery	10	2.159827	0.063827	EGFR, KRAS, PODXL, FLOT1, C	443	206	18224	1.996976	1	0.464047	60.59096
GOTERM CC DIRECT	GO:0032444-activin responsive factor complex	4	0.863931	0.068157	PHB2, RHOA, MSN, CTNNB1	443	39	18224	4.219251	1	0.479695	63.08737
GOTERM CC DIRECT	GO:0005128-microvillus membrane	2	0.431965	0.071015	SMAD4, SMAD2	443	3	18224	27.42513	1	0.487043	64.65383
GOTERM CC DIRECT	GO:0043209-myelin sheath	3	0.647948	0.076515	PODXL, MSN, CTNNB1	443	19	18224	6.495426	1	0.50671	67.49642
GOTERM CC DIRECT	GO:0005938-cell cortex	8	1.727862	0.077302	BCL2, PGAM4, FSCN1, NDRL1	443	152	18224	2.165142	1	0.503389	67.88557
GOTERM CC DIRECT	GO:0031463-Cul3-RING ubiquitin ligase complex	7	1.511879	0.07908	PFN1, PARD6B, NRPB1, FERM72	443	123	18224	2.34117	1	0.50474	68.74815
GOTERM CC DIRECT	GO:0005637-nuclear inner membrane	5	1.079914	0.079546	IPP, KLHL28, KLHL42, KEAP1, I	443	67	18224	3.069977	1	0.500125	68.97085
GOTERM CC DIRECT	GO:0043235-receptor complex	4	0.863931	0.085865	LMBN1, SMAD3, DPY19L1, MA	443	43	18224	3.826763	1	0.52138	71.8463
GOTERM CC DIRECT	GO:0030175-filopodium	7	1.511879	0.088996	EGFR, ACVRIB, NOTCH2, IGF1	443	127	18224	2.267432	1	0.52803	73.17746
GOTERM CC DIRECT	GO:00030175-filopodium	5	1.079914	0.093723	VCAMI, PODXL, FSCN1, AB12,	443	71	18224	2.897021	1	0.54083	75.077
GOTERM CC DIRECT	GO:0005622-intracellular	41	8.852592	0.094001	RAB5B, ADCY6, BTC, BAP1, IL	443	1332	18224	1.26625	1	0.535511	75.18461
GOTERM CC DIRECT	GO:0005720-nuclear heterochromatin	3	0.647948	0.09863	ATRX, DNMT3A, H2AFZ	443	22	18224	5.609686	1	0.547269	76.91594

Category	Term	Count	%	PValue	Genes	List Total	Pop Hits	Pop Total	Fold Enrich	Bonferroni	Benjamini	FDR
GOTERM MF DIRECT	GO:0005515-protein binding	303	65.44276	7.69E-16	DLC1, LD	427	8785	16881	1.36355	5.21E-13	5.21E-13	1.17E-12
GOTERM MF DIRECT	GO:0003682-chromatin binding	35	7.559395	3.55E-10	CCNT2, M	427	391	16881	3.538845	2.38E-07	1.19E-07	5.32E-07
GOTERM MF DIRECT	GO:0031490-chromatin DNA binding	13	2.807775	1.78E-08	SUZ12, NC	427	58	16881	8.86106	1.20E-05	3.98E-06	2.67E-05
GOTERM MF DIRECT	GO:0019901-protein kinase binding	30	6.479482	1.02E-07	CCNT2, G	427	376	16881	3.154305	6.85E-05	1.71E-05	1.53E-04
GOTERM MF DIRECT	GO:0043565-sequence-specific DNA binding	35	7.559393	3.84E-07	FOXA2, T	427	518	16881	2.671213	2.57E-04	5.15E-05	5.76E-04
GOTERM MF DIRECT	GO:0008134-transcription factor binding	24	5.183585	9.51E-07	HMGBl, F	427	284	16881	3.340989	6.37E-04	1.06E-04	0.001425
GOTERM MF DIRECT	GO:0044212-transcription regulatory region DNA binding	19	4.103672	8.05E-06	ZNF831, F	427	213	16881	3.526503	0.005379	7.70E-04	0.012067
GOTERM MF DIRECT	GO:0003700-transcription factor activity, sequence-specific DNA binding	48	10.36717	1.06E-05	HMGBl, E	427	961	16881	1.974641	0.007096	8.90E-04	0.015933
GOTERM MF DIRECT	GO:0044822-poly(A) RNA binding	53	11.44708	1.85E-05	ZMAT3, R	427	1129	16881	1.85589	0.012311	0.001375	0.027715
GOTERM MF DIRECT	GO:0003725-double-stranded RNA binding	9	1.943844	1.41E-04	LSM14A, J	427	61	16881	5.832879	0.089903	0.009376	0.210574
GOTERM MF DIRECT	GO:0001228-transcriptional activator activity, RNA polymerase II transcription t	11	2.37581	1.41E-04	EP300, GA	427	95	16881	4.577616	0.089959	0.008533	0.21071
GOTERM MF DIRECT	GO:0001085-RNA polymerase II transcription factor binding	8	1.272862	1.63E-04	MTDH, G	427	47	16881	6.729184	0.103534	0.009067	0.244265
GOTERM MF DIRECT	GO:0035257-nuclear hormone receptor binding	6	1.295898	1.85E-04	NCOA2, E	427	22	16881	10.78199	0.116344	0.009469	0.276388
GOTERM MF DIRECT	GO:0008013-beta-catenin binding	10	1.272862	2.19E-04	EP300, GS	427	82	16881	4.821214	0.136642	0.01044	0.328228
GOTERM MF DIRECT	GO:0005168-neurotrophin TRKA receptor binding	4	0.863931	3.02E-04	PLCG1, GI	427	6	16881	26.35597	0.182971	0.013382	0.451163
GOTERM MF DIRECT	GO:0003713-transcription coactivator activity	17	3.671706	5.85E-04	MTDH, R	427	248	16881	2.709989	0.324463	0.024217	0.873868
GOTERM MF DIRECT	GO:0003677-DNA binding	64	13.82289	8.15E-04	E2F3, ZNF	427	1674	16881	1.511454	0.42097	0.03163	1.215204
GOTERM MF DIRECT	GO:0003924-GTPase activity	16	3.455724	9.17E-04	GNAA13, R	427	234	16881	2.703177	0.459197	0.033574	1.366062
GOTERM MF DIRECT	GO:0005158-insulin receptor binding	6	1.295898	9.83E-04	IGF1R, PD	427	31	16881	7.651734	0.484381	0.034262	1.471252
GOTERM MF DIRECT	GO:0003690-double-stranded DNA binding	9	1.943844	9.91E-04	LSM14A, J	427	81	16881	4.392662	0.485395	0.032672	1.475591
GOTERM MF DIRECT	GO:00119903-protein phosphatase binding	8	1.727862	0.001015	EGFR, CD	427	63	16881	5.020185	0.493730	0.031894	1.511614
GOTERM MF DIRECT	GO:0000978-RNA polymerase II core promoter proximal region sequence-specific	20	4.319654	0.001776	FOXA2, ZI	427	355	16881	2.227265	0.696009	0.052687	2.629299
GOTERM MF DIRECT	GO:0019003-GDP binding	7	1.511879	0.002314	RAB3B, K	427	54	16881	5.124772	0.788146	0.065246	3.412895
GOTERM MF DIRECT	GO:0001102-RNA polymerase II activating transcription factor binding	6	1.295898	0.002524	EP300, TP	427	38	16881	6.242204	0.81637	0.068182	3.721413
GOTERM MF DIRECT	GO:0042802-identical protein binding	33	7.12743	9.026648	MTSS1, LI	427	749	16881	1.741817	0.83076	0.068592	3.897062
GOTERM MF DIRECT	GO:0031625-ubiquitin protein ligase binding	17	3.671706	0.002667	EGFR, TP	427	287	16881	2.341733	0.832886	0.066497	3.924238
GOTERM MF DIRECT	GO:0003723-RNA binding	26	5.615551	0.003264	RB15B,	427	547	16881	1.879128	0.888154	0.07793	4.78365
GOTERM MF DIRECT	GO:0003886-DNA (cytosine-5)-methyltransferase activity	3	0.647948	0.003686	DNMT3A,	427	4	16881	29.65047	0.915754	0.084567	3.585501
GOTERM MF DIRECT	GO:0005525-GTP binding	20	4.319654	0.004422	GNAA13, R	427	384	16881	2.0590	0.941169	0.093072	6.142653
GOTERM MF DIRECT	GO:001076-transcription factor activity, RNA polymerase II transcription factor	4	0.863931	0.004721	GATA4, S	427	14	16881	11.29542	0.95803	0.1003	6.849273
GOTERM MF DIRECT	GO:0019899-enzyme binding	18	3.887689	0.004914	EGFR, CY	427	333	16881	2.136971	0.963137	0.100998	7.119318
GOTERM MF DIRECT	GO:0035035-histone acetyltransferase binding	5	1.079914	0.005067	SP1, ETS1	427	28	16881	7.059635	0.966733	0.10089	7.332398
GOTERM MF DIRECT	GO:0009008-DNA methyltransferase activity	3	0.647948	0.005604	DNMT3A,	427	5	16881	23.72037	0.98274	0.115747	8.683107
GOTERM MF DIRECT	GO:0003705-transcription factor activity, RNA polymerase II distal enhancer seq	7	1.511879	0.006324	GATA6, JU	427	66	16881	4.192996	0.985739	0.117509	9.072244
GOTERM MF DIRECT	GO:0000977-RNA polymerase II regulatory region sequence-specific DNA bindi	13	2.807775	0.006694	RARG, KL	427	208	16881	2.470872	0.988889	0.120646	9.578718
GOTERM MF DIRECT	GO:0005200-structural constituent of cytoskeleton	9	1.943844	0.006723	YEATS4,	427	110	16881	3.234597	0.989123	0.118021	9.621759
GOTERM MF DIRECT	GO:001190-transcriptional activator activity, RNA polymerase II transcription I	1	0.863931	0.006997	NOTCH1,	427	16	16881	8.883489	0.990045	0.119397	9.991809
GOTERM MF DIRECT	GO:0001077-transcriptional activator activity, RNA polymerase II core promoter	14	3.023758	0.007112	TFAM, ZN	427	236	16881	2.345235	0.99162	0.118243	10.147448
GOTERM MF DIRECT	GO:0046982-protein heterodimerization activity	22	4.75162	0.007571	EGFR, CE	427	465	16881	1.870424	0.993849	0.122379	10.76705
GOTERM MF DIRECT	GO:0004842-ubiquitin-protein transferase activity	17	3.671706	0.009638	IPX1AP,	427	329	16881	2.042788	0.998479	0.149742	13.51453
GOTERM MF DIRECT	GO:007064-proline-rich region binding	4	0.863931	0.011449	PFN1, CY1	427	19	16881	8.322938	0.999554	0.171529	15.85565
GOTERM MF DIRECT	GO:0019900-kinase binding	7	1.511879	0.01161	LDHA, TL	427	75	16881	3.689836	0.9996	0.16997	16.06098
GOTERM MF DIRECT	GO:0000979-RNA polymerase II core promoter sequence-specific DNA binding	6	1.295898	0.014287	SUZ12, EP	427	57	16881	4.161469	0.999935	0.200859	19.4054
GOTERM MF DIRECT	GO:0070412-transmembrane receptor protein tyrosine kinase activity	5	1.079914	0.014998	EGFR, IGF	427	38	16881	5.201837	0.99996	0.205555	20.2728
GOTERM MF DIRECT	GO:0005200-structural constituent of cytoskeleton	4	0.863931	0.015141	JUN, SMA	427	21	16881	7.530278	0.99964	0.203209	20.44632
GOTERM MF DIRECT	GO:0001227-transcriptional repressor activity, RNA polymerase II transcription I	29	6.263499	0.016403	KLF12, MI	427	59	16881	4.020402	0.999985	0.214072	21.96019
GOTERM MF DIRECT	GO:0042803-protein homodimerization activity	4	0.863931	0.019429	SP1, ETS1	427	730	16881	1.570527	0.999997	0.23515	24.56757
GOTERM MF DIRECT	GO:0000982-transcription factor activity, RNA polymerase II core promoter prox	4	0.863931	0.022539	cell adhesion molecule binding	427	23	16881	6.875471	0.999998	0.239563	25.48319
GOTERM MF DIRECT	GO:0044734-phosphatidylinositol-4,5-bisphosphate 3-kinase activity	6	1.295898	0.019951	VCAM1, P	427	62	16881	3.825867	0.999999	0.240847	26.07555
GOTERM MF DIRECT	GO:0001047-core promoter binding	4	0.863931	0.022575	NOTCH1,	427	64	16881	3.825867	0.999999	0.240847	26.07555
GOTERM MF DIRECT	GO:0030971-receptor tyrosine kinase binding	5	1.079914	0.022738	PITPNM3,	427	43	16881	4.596972	1	0.260786	29.16613
GOTERM MF DIRECT	GO:0016303-1-phosphatidylinositol-3-kinase activity	3	0.647948	0.025003	GRB2, PIK3CA	427	10	16881	11.86019	1	0.278379	31.58795
GOTERM MF DIRECT	GO:0000774-adenyl-nucleotide exchange factor activity	3	0.647948	0.025003	SHC1, IRS	427	10	16881	11.86019	1	0.278379	31.58795
GOTERM MF DIRECT	GO:0005688-transmembrane receptor protein tyrosine kinase adaptor activity	3	0.647948	0.025003	CCNT2, TI	427	171	16881	2.311927	1	0.317136	36.38947
GOTERM MF DIRECT	GO:0000981-RNA polymerase II transcription factor activity, sequence-specific I	4	0.863931	0.029806	SP1, GAT	427	27	16881	5.856883	0.981305	0.313015	36.46996
GOTERM MF DIRECT	GO:0070411-i-SMAD binding	3	0.647948	0.030057	SMAD4, S	427	11	16881	10.78199	1	0.31048	36.71514
GOTERM MF DIRECT	GO:0017124-SH3 domain binding	8	1.272862	0.031222	GRB2, AB	427	119	16881	2.657745	1	0.315796	37.84524
GOTERM MF DIRECT	GO:0070410-co-SMAD binding	3	0.647948	0.035475	GATA4, S	427	12	16881	9.883489	1	0.345947	41.81345
GOTERM MF DIRECT	GO:0004672-protein kinase activity	16	3.455724	0.035973	EGFR, IGF	427	359	16881	1.761759	1	0.372761	45.41133
GOTERM MF DIRECT	GO:0005154-epidermal growth factor receptor binding	4	0.863931	0.042565	GRB2, BT	427	31	16881	5.101156	1	0.38979	47.90597
GOTERM MF DIRECT	GO:0002020-protein binding	7	1.511879	0.042667	TNFRSF1	427	101	16881	2.739977	1	0.385481	47.98948
GOTERM MF DIRECT	GO:0032794-GTPase activating protein binding	3	0.647948	0.047324	TUBB, FM	427	14	16881	8.471562	1	0.412861	51.65619
GOTERM MF DIRECT	GO:0005524-ATP binding	49	10.58315	0.049492	NRBPI, PI	427	1495	16881	1.295762	1	0.422193	53.27897
GOTERM MF DIRECT	GO:0051718-DNA (cytosine-5)-methyltransferase activity, acting on CpG subst	2	0.431965	0.049849	DNMT3A, P	427	2	16881	39.53396	1	0.41938	53.51838
GOTERM MF DIRECT	GO:0051718-integrin binding	7	1.511879	0.049917	VCAM1, E	427	105	16881	2.635597	1	0.41495	53.59211
GOTERM MF DIRECT	GO:0004713-protein tyrosine kinase activity	8	1.272862	0.051733	EGFR, IGF	427	133	16881	2.377982	1	0.421626	54.90367
GOTERM MF DIRECT	GO:0008083-growth factor activity	9	1.943844	0.053323	BDNF, FG	427	162	16881	2.196331	1	0.42666	56.02425
GOTERM MF DIRECT	GO:0005159-insulin-like growth factor receptor binding	3	0.647948	0.074516	SP1, JUN	427	15	16881	6.388993	1	0.503974	68.6816
GOTERM MF DIRECT	GO:00046474-protein serine/threonine kinase activity	16	3.455724	0.054851	CCNT2, N	427	376	16881	1.682296	1	0.426043	57.07624
GOTERM MF DIRECT	GO:0004722-protein serine/threonine phosphatase activity	5	1.079914	0.058463	CDC14B, I	427	58	16881	2.635597	1	0.424603	57.07624
GOTERM MF DIRECT	GO:0005518-collagen binding	5	1.079914	0.064664	SMAD4, S	427	60	16881	3.294496	1	0.427625	63.29347