

KEGG Pathways Analysis Result

Pathway	# of protein ids	# of total protein	p-value (right tail)	protein id list
hsa01430	30	137	9.09748321811112E-14	IPI00290078[KRT4 ,], IPI00450768[KRT17 ,], IPI00241841[KRT6L ,], IPI00298971[VTN ,], IPI00015309[KRT12 ,], IPI00479145[KRT19 ,], IPI00166205[K5B ,], IPI00554788[KRT18 ,], IPI00296922[LAMB2 ,], IPI00009867[KRT5 ,], IPI00293665[KRT6B ,], IPI00220327[KRT1 ,], IPI00021304[KRT2A ,], IPI00296099[THBS1 ,], IPI00298281[LAMC1 ,], IPI00028931[DSG2 ,], IPI00021439[ACTB ,], IPI00300725[KRT6C , KRT6A ,], IPI00383111[KRT10 ,], IPI00290077[KRT15 ,], IPI00217963[KRT16 ,], IPI00174775[K6IRS3 ,], IPI00027422[ITGB4 ,], IPI00025846[DSC2 ,], IPI00329482[LAMA4 ,], IPI00009865[KRT10 ,], IPI00554648[KRT8 ,], IPI00291136[COL6A1 ,], IPI00384444[KRT14 ,], IPI00019359[KRT9 ,],
hsa00510	11	41	8.39828724134271E-7	IPI00016743[MGAT4A ,], IPI00009145[MAN1A2 ,], IPI00383581[GANAB ,], IPI00302523[FUT8 ,], IPI00003802[MAN2A1 ,], IPI00654619[B4GALT3 ,], IPI00215767[B4GALT1 ,], IPI00328170[GCS1 ,], IPI00291641[MAN1A1 ,], IPI00000138[MGAT1 ,], IPI00179044[MGAT1 ,],
hsa01030	18	115	1.8982352752825001E-6	IPI00302523[FUT8 ,], IPI00000138[MGAT1 ,], IPI00291641[MAN1A1 ,], IPI00004047[EXT2 ,], IPI00339297[GALNT4 ,], IPI00006248[GCNT3 ,], IPI00016743[MGAT4A ,], IPI00009629[ST3GAL1 ,], IPI00009145[MAN1A2 ,], IPI00383581[GANAB ,], IPI00003802[MAN2A1 ,],

				IPI00654619 B4GALT3 , IPI00328170 GCS1 , IPI00215767 B4GALT1 , IPI00044326 D4ST1 , IPI00005599 NDST1 , IPI00179044 MGAT1 , IPI00101299 C1GALT1C1 ,
hsa05110	9	41	4.9181069975125895E-5	IPI00009852 ATP6V0A4 , IPI00095891 GNAS , IPI00004488 ATP6V1F , IPI00296191 ATP6V1H , IPI00007682 ATP6V1A , IPI00003856 ATP6V1E1 , IPI00215914 ARF1 , IPI00034159 ATP6V0D1 , IPI00001568 ATP6V1D ,
hsa05131	10	53	7.480807263403253E-5	IPI00180675 TUBA3 , IPI00027500 RHOA , IPI00018146 YWHAQ , IPI00029260 CD14 , IPI00021439 ACTB , IPI00011654 TUBB , IPI00554788 KRT18 , IPI00007750 TUBA1 , IPI00479359 VIL2 , IPI00021263 YWHAZ ,
hsa05130	10	53	7.480807263403253E-5	IPI00180675 TUBA3 , IPI00027500 RHOA , IPI00018146 YWHAQ , IPI00029260 CD14 , IPI00021439 ACTB , IPI00011654 TUBB , IPI00554788 KRT18 , IPI00007750 TUBA1 , IPI00479359 VIL2 , IPI00021263 YWHAZ ,
hsa05120	11	68	1.4223630906207244E-4	IPI00009852 ATP6V0A4 , IPI00001754 F11R , IPI00004488 ATP6V1F , IPI00296191 ATP6V1H , IPI00007812 ATP6V1B2 , IPI00007682 ATP6V1A , IPI00020430 ATP6API , IPI00304911 ATP6V1B1 , IPI00003856 ATP6V1E1 , IPI00034159 ATP6V0D1 , IPI00001568 ATP6V1D ,
hsa04512	12	87	3.3856427247224796E-4	IPI00298281 LAMC1 , IPI00296922 LAMB2 , IPI00011564 SDC4 , IPI00297160 CD44 , IPI00024284 HSPG2 , IPI00298971 VTN , IPI00329482 LAMA4 , IPI00374563 AGRN ,

				IPI00291136[COL6A1 ,], IPI00296099[THBS1 ,], IPI00027422[ITGB4 ,], IPI00028911[DAGL ,],
hsa00010	9	64	0.001605718178926483	IPI00465248[ENO1 ,], IPI00169383[PGK1 ,], IPI00027497[GPI ,], IPI00332371[PFKL ,], IPI00219018[GAPDH ,], IPI00220271[AKR1A1 ,], IPI00465439[ALDOA ,], IPI00479186[PKM2 ,], IPI00465028[TPI1 ,],
hsa00602	5	21	0.0016848573706943963	IPI00021384[FUT6 ,], IPI00654619[B4GALT3 ,], IPI00215767[B4GALT1 ,], IPI00007671[FUT3 ,], IPI00184851[ST3GAL6 ,],
hsa00710	5	22	0.0021040723075692247	IPI00169383[PGK1 ,], IPI00465439[ALDOA ,], IPI00219029[GOT1 ,], IPI00479186[PKM2 ,], IPI00465028[TPI1 ,],
hsa00533	4	16	0.004132958064598382	IPI00009629[ST3GAL1 ,], IPI00302523[FUT8 ,], IPI00654619[B4GALT3 ,], IPI00215767[B4GALT1 ,],
hsa04612	9	83	0.009342153709883248	IPI00295741[CTSB ,], IPI00026569[HLA-A ,], IPI00005171[HLA-DRA ,], IPI00025252[PDIA3 ,], IPI00334775[HSPCB ,], IPI00382470[HSPCA ,], IPI00020599[CALR ,], IPI00003362[HSPA5 ,], IPI00004656[B2M ,],
hsa01031	7	62	0.016958778205323842	IPI00009629[ST3GAL1 ,], IPI00021384[FUT6 ,], IPI00024466[UGCGL1 ,], IPI00654619[B4GALT3 ,], IPI00215767[B4GALT1 ,], IPI00007671[FUT3 ,], IPI00184851[ST3GAL6 ,],
hsa04510	15	194	0.020871384891946048	IPI00015148[RAP1B ,], IPI00298281[LAMC1 ,], IPI00021439[ACTB ,], IPI00298971[VTN ,], IPI00099977[PDGFC ,], IPI00013508[ACTN1 ,], IPI00027422[ITGB4 ,], IPI00027500[RHOA ,], IPI00218236[PPP1CB ,], IPI00296922[LAMB2 ,], IPI00329482[LAMA4 ,], IPI00013808[ACTN4 ,],

				IPI00291136[COL6A1 ,], IPI00296099[THBS1 ,], IPI00289758[CAPN2 ,],
hsa00030	4	25	0.02115206469760432	IPI00027497[GPI ,], IPI00332371[PFKL ,], IPI00465439[ALDOA ,], IPI00030828[H6PD ,],
hsa00190	11	127	0.02137697329048896	IPI00009852[ATP6V0A4 ,], IPI00004488[ATP6V1F ,], IPI00296191[ATP6V1H ,], IPI00007812[ATP6V1B2 ,], IPI00007682[ATP6V1A ,], IPI00020430[ATP6API ,], IPI00304911[ATP6V1B1 ,], IPI00303476[ATP5B ,], IPI00003856[ATP6V1E1 ,], IPI00034159[ATP6V0D1 ,], IPI00001568[ATP6V1D ,],
hsa04540	9	98	0.025502619121931504	IPI00095891[GNAS ,], IPI00180675[TUBA3 ,], IPI00305551[GNAI1 ,], IPI00011654[TUBB ,], IPI00099977[PDGFC ,], IPI00007750[TUBA1 ,], IPI00219563[PLCB1 ,], IPI00288947[GNAQ ,], IPI00217906[GNAI2 ,],
hsa00051	5	41	0.030671322989580804	IPI00030207[GMDS ,], IPI00024466[UGCG1 ,], IPI00332371[PFKL ,], IPI00465439[ALDOA ,], IPI00465028[TPI1 ,],
hsa04810	15	208	0.03590125054708866	IPI00017367[RDX ,], IPI00009342[IQGAP1 ,], IPI00021439[ACTB ,], IPI00026314[GSN ,], IPI00020060[SLC9A1 ,], IPI00013508[ACTN1 ,], IPI00219365[MSN ,], IPI00027422[ITGB4 ,], IPI00027500[RHOA ,], IPI00019502[MYH9 ,], IPI00218236[PPP1CB ,], IPI00029260[CD14 ,], IPI00013808[ACTN4 ,], IPI00012011[CFL1 ,], IPI00479359[VIL2 ,],
hsa04520	7	75	0.04268091349542283	IPI00027500[RHOA ,], IPI00009342[IQGAP1 ,], IPI00021439[ACTB ,], IPI00013981[YES1 ,], IPI00013808[ACTN4 ,], IPI00013508[ACTN1 ,], IPI00107831[PTPRF ,],
hsa00512	4	31	0.043012598912158355	IPI00009629[ST3GAL1 ,],

				IPI00339297[GALNT4 ,], IPI00101299[CIGALT1C1 ,], IPI00006248[GCNT3 ,],
hsa04670	9	108	0.04371611118821832	IPI00015148[RAP1B ,], IPI00027500[RHOA ,], IPI00021439[ACTB ,], IPI00001754[F11R ,], IPI00013808[ACTN4 ,], IPI00013508[ACTN1 ,], IPI00219365[MSN ,], IPI00479359[VIL2 ,], IPI00217906[GNAI2 ,],
hsa01510	4	38	0.07999022519197399	IPI00298547[PARK7 ,], IPI00219018[GAPDH ,], IPI00006608[APP ,], IPI00003362[HSPA5 ,],
hsa00031	1	2	0.08455942482590399	IPI00465028[TPI1 ,],
hsa00480	4	39	0.08624459819167568	IPI00219673[GSTK1 ,], IPI00026199[GPX3 ,], IPI00221224[ANPEP ,], IPI00219757[GSTP1 ,],
hsa05060	2	13	0.10614248745236426	IPI00298281[LAMC1 ,], IPI00003362[HSPA5 ,],
hsa00401	1	3	0.1241249152139577	IPI00219029[GOT1 ,],
hsa04530	8	117	0.1333291247128821	IPI00019502[MYH9 ,], IPI00027500[RHOA ,], IPI00021439[ACTB ,], IPI00001754[F11R ,], IPI00013981[YES1 ,], IPI00013808[ACTN4 ,], IPI00013508[ACTN1 ,], IPI00217906[GNAI2 ,],
hsa05040	3	31	0.14830309213003623	IPI00075248[CALM2,CALM1,CALM3 ,], IPI00219018[GAPDH ,], IPI00024067[CLTC ,],
hsa00830	1	4	0.16198432154252929	IPI00218914[ALDH1A1 ,],
hsa05020	2	17	0.16564814813553422	IPI00645078[UBE1 ,], IPI00298547[PARK7 ,],
hsa04720	5	69	0.1771801948349379	IPI00015148[RAP1B ,], IPI00218236[PPP1CB ,], IPI00075248[CALM2,CALM1,CALM3 ,], IPI00219563[PLCB1 ,], IPI00288947[GNAQ ,],
hsa04610	5	69	0.1771801948349379	IPI00011302[CD59 ,], IPI00019580[PLG ,], IPI00164623[C3 ,], IPI00418163[XXbac-BPG116M5.7,C4B ,], IPI00019591[BF ,],
hsa04640	6	88	0.18000060372460336	IPI00011302[CD59 ,], IPI00029260[CD14 ,],

				IPI00297160[CD44 ,], IPI00005171[HLA-DRA ,], IPI00221224[ANPEP ,], IPI00215997[CD9 ,],
hsa00534	2	19	0.19718272313119237	IPI00004047[EXT2 ,], IPI00005599[NDST1 ,],
hsa00950	1	5	0.19821104097634715	IPI00219029[GOT1 ,],
hsa04730	5	76	0.2310127943312469	IPI00095891[GNAS ,], IPI00305551[GNAI1 ,], IPI00219563[PLCB1 ,], IPI00288947[GNAQ ,], IPI00217906[GNAI2 ,],
hsa00520	1	6	0.23287532037999356	IPI00410544[UXS1 ,],
hsa00532	2	22	0.24558426600403185	IPI00044326[D4ST1 ,], IPI00304331[B3GAT3 ,],
hsa00530	2	25	0.29436380955332936	IPI00009305[GNPDA1 ,], IPI00470674[CYB5R1 ,],
hsa03060	1	8	0.2977825987653134	IPI00385267[SRPR ,],
hsa00500	5	85	0.3057976355020298	IPI00006725[DDX23 ,], IPI00300786[AMY1A,AMY1C,AMY1B ,], IPI00027497[GPI ,], IPI00020999[ENPP3 ,], IPI00410544[UXS1 ,],
hsa00400	1	9	0.3281515255582169	IPI00219029[GOT1 ,],
hsa00310	3	47	0.331828011559372	IPI00030255[PLOD3 ,], IPI00027192[PLOD1 ,], IPI00337495[PLOD2 ,],
hsa05010	2	28	0.34268374724227857	IPI00219018[GAPDH ,], IPI00006608[APP ,],
hsa04110	6	112	0.3550555466593255	IPI00018146[YWHAQ ,], IPI00216319[YWHAH ,], IPI00220642[YWHAG ,], IPI00000816[YWHAE ,], IPI00216318[YWHAB ,], IPI00021263[YWHAZ ,],
hsa00601	1	10	0.35721010991040986	IPI00007671[FUT3 ,],
hsa04740	2	31	0.3899077197585691	IPI00298082[CLCA4 ,], IPI00075248[CALM2,CALM1,CALM3 ,],
hsa00052	2	32	0.405319805048286	IPI00332371[PFKL ,], IPI00215767[B4GALT1 ,],
hsa04912	5	97	0.4094666801196179	IPI00095891[GNAS ,], IPI00305551[GNAI1 ,], IPI00075248[CALM2,CALM1,CALM3 ,], IPI00219563[PLCB1 ,], IPI00288947[GNAQ ,],
hsa04916	5	102	0.4523562250039749	IPI00095891[GNAS ,], IPI00075248[CALM2,CALM1,CALM3 ,], IPI00219563[PLCB1 ,],

				IPI00288947[GNAQ ,], IPI00217906[GNAI2 ,],
hsa00603	1	14	0.46143344821251353	IPI00009629[ST3GAL1 ,],
hsa00363	1	14	0.46143344821251353	IPI00299778[PON3 ,],
hsa00930	1	15	0.4847395085842946	IPI00220271[AKR1A1 ,],
hsa05050	1	15	0.4847395085842946	IPI00219018[GAPDH ,],
hsa00511	1	16	0.5070393421413315	IPI00029817[NEU1 ,],
hsa00604	1	16	0.5070393421413315	IPI00009629[ST3GAL1 ,],
hsa00740	1	16	0.5070393421413315	IPI00020999[ENPP3 ,],
hsa00770	1	17	0.5283762917747317	IPI00020999[ENPP3 ,],
hsa04614	1	17	0.5283762917747317	IPI00221224[ANPEP ,],
hsa00272	1	17	0.5283762917747317	IPI00219029[GOT1 ,],
hsa04940	2	45	0.5851704637281755	IPI00026569[HLA-A ,], IPI00005171[HLA-DRA ,],
hsa03320	3	70	0.58818951504197	IPI00022733[PLTP ,], IPI00021841[APOA1,LOC440837 ,], IPI00021854[APOA2 ,],
hsa00910	1	23	0.6383797154302947	IPI00295105[CA6 ,],
hsa04742	2	53	0.6742893703947901	IPI00095891[GNAS ,], IPI00026268[GNB1 ,],
hsa00361	1	26	0.6833688313548582	IPI00299778[PON3 ,],
hsa00590	2	54	0.684264082577851	IPI00026199[GPX3 ,], IPI00295386[CBR1 ,],
hsa04514	5	133	0.6870245418818282	IPI00011564[SDC4 ,], IPI00026569[HLA-A ,], IPI00001754[F11R ,], IPI00005171[HLA-DRA ,], IPI00107831[PTPRE ,],
hsa04910	5	135	0.6995848367233334	IPI00218236[PPP1CB ,], IPI00075248[CALM2,CALM1,CALM3 ,], IPI00332371[PFKL ,], IPI00479186[PKM2 ,], IPI00107831[PTPRE ,],
hsa04210	3	84	0.7100015475898591	IPI00011285[CAPN1 ,], IPI00000049[TNFSF10 ,], IPI00289758[CAPN2 ,],
hsa00561	2	57	0.7126927461195907	IPI00024466[UGCG1 ,], IPI00220271[AKR1A1 ,],
hsa00360	1	29	0.7227726564654355	IPI00219029[GOT1 ,],
hsa05222	3	87	0.7321652694120983	IPI00298281[LAMC1 ,], IPI00296922[LAMB2 ,], IPI00329482[LAMA4 ,],
hsa01032	1	30	0.7347882541217623	IPI00029817[NEU1 ,],
hsa00251	1	30	0.7347882541217623	IPI00219029[GOT1 ,],
hsa00252	1	32	0.7572831256906449	IPI00219029[GOT1 ,],
hsa00330	1	35	0.7875066352242581	IPI00219029[GOT1 ,],
hsa04115	2	68	0.7991241969121297	IPI00020446[CD82 ,],

hsa04360	4	128	0.8098799547673728	IPI00296099 [THBS1 , IPI00027500 [RHOA ,] IPI00024570 [SEMA3G ,] IPI00012011 [CFL1 ,] IPI00217906 [GNAI2 ,]
hsa00980	2	70	0.8121125400530467	IPI00219673 [GSTK1 ,] IPI00219757 [GSTP1 ,]
hsa00600	1	38	0.8139745943466297	IPI00029817 [NEU1 ,]
hsa00760	1	39	0.822044899925368	IPI00020999 [ENPP3 ,]
hsa00860	1	41	0.8371526787830414	IPI00219910 [BLVRB ,]
hsa00790	1	42	0.8442196701557916	IPI00006725 [DDX23 ,]
hsa00620	1	42	0.8442196701557916	IPI00479186 [PKM2 ,]
hsa05219	1	42	0.8442196701557916	IPI00296099 [THBS1 ,]
hsa04930	1	44	0.8574489443840277	IPI00479186 [PKM2 ,]
hsa04070	2	79	0.8617226889382871	IPI00075248 [CALM2 , CALM1 , CALM3 ,] IPI00219563 [PLCB1 ,]
hsa04120	1	45	0.8636370916774352	IPI00645078 [UBE1 ,]
hsa00260	1	45	0.8636370916774352	IPI00011200 [PHGDH ,]
hsa00230	4	144	0.8750776488500037	IPI00031558 [NUDT9 ,] IPI00026260 [NME2 ,] IPI00020999 [ENPP3 ,] IPI00479186 [PKM2 ,]
hsa04150	1	47	0.8752209414672162	IPI00032561 [CAB39 ,]
hsa04020	5	176	0.8831491705738772	IPI00095891 [GNAS ,] IPI00305551 [GNA11 ,] IPI00075248 [CALM2 , CALM1 , CALM3 ,] IPI00219563 [PLCB1 ,] IPI00288947 [GNAQ ,]
hsa05215	2	87	0.8954451664346198	IPI00219757 [GSTP1 ,] IPI00027230 [TRA1 ,]
hsa00562	1	52	0.9000646301656325	IPI00219563 [PLCB1 ,]
hsa04350	2	89	0.9025923034757819	IPI00027500 [RHOA ,] IPI00296099 [THBS1 ,]
hsa00350	1	57	0.919971417914121	IPI00219029 [GOT1 ,]
hsa04662	1	63	0.9387074087304088	IPI00000190 [CD81 ,]
hsa04620	2	102	0.9390051792683572	IPI00029260 [CD14 ,] IPI00550917 [PTK9L ,]
hsa05214	1	64	0.9413734212389058	IPI00075248 [CALM2 , CALM1 , CALM3 ,]
hsa05211	1	69	0.9530650529058009	IPI00015148 [RAP1B ,]
hsa05218	1	71	0.9570619278260166	IPI00099977 [PDGFC ,]
hsa05212	1	73	0.9607191879210908	IPI00217519 [RALA ,]
hsa00240	1	87	0.9789470303949763	IPI00026260 [NME2 ,]
hsa04650	2	132	0.9801414202447388	IPI00000049 [TNFSF10 ,] IPI00026569 [HLA-A ,]
hsa04660	1	93	0.9838897339392673	IPI00027500 [RHOA ,]

hsa04310	2	149	0.9896932099661784	IPI00027500 [RHOA ,], IPI00219563 [PLCB1 ,],
hsa04060	4	258	0.9964921049124374	IPI00000049 [TNFSF10 ,], IPI00099977 [PDGFC ,], IPI00027239 [TNFSF12 , TNFSF13 ,], IPI00016593 [CCL28 ,],
hsa04010	2	257	0.9998702157480374	IPI00015148 [RAP1B ,], IPI00029260 [CD14 ,],