

Supplementary Table 1. Functional enrichment by Gene Ontology for CAD versus control and CAD versus CAD comparisons differentially expressed genes in three patient groups with different HDL-C levels.

Term	Gene Count	DEG	FDR
Biological process			
<i>CAD_vs_control_HDL_low</i>			
GO:0042632~cholesterol homeostasis	7	<i>ABCA1, SCARB1, NR1H2, LPL, LCAT, NR1H3, ABCG1</i>	6.75E-07
GO:0010875~positive regulation of cholesterol efflux	5	<i>ABCA1, NR1H2, NR1H3, PLTP, ABCG1</i>	3.84E-06
GO:0008203~cholesterol metabolic process	6	<i>ABCA1, SREBF1, CUBN, HDLBP, LCAT, ABCG1</i>	4.74E-06
GO:0010887~negative regulation of cholesterol storage	4	<i>ABCA1, NR1H2, NR1H3, ABCG1</i>	1.78E-05
GO:0006954~inflammatory response	8	<i>IL1R1, S100A12, PRKCQ, CD14, TNFRSF1B, CXCL5, S100A8, IL18R1</i>	2.61E-05
GO:0010745~negative regulation of macrophage derived foam cell differentiation	4	<i>ABCA1, NR1H2, NR1H3, ABCG1</i>	2.61E-05
GO:0010867~positive regulation of triglyceride biosynthetic process	4	<i>SREBF1, SCARB1, NR1H2, NR1H3</i>	2.79E-05
GO:0034375~high-density lipoprotein particle remodeling	4	<i>SCARB1, LCAT, PLTP, ABCG1</i>	3.00E-05
GO:0043691~reverse cholesterol transport	4	<i>ABCA1, SCARB1, LCAT, ABCG1</i>	3.88E-05
GO:0006869~lipid transport	5	<i>ABCA1, SCARB1, HDLBP, PCTP, PLTP</i>	1.27E-04
GO:0006629~lipid metabolic process	6	<i>SREBF1, NR1H2, LPL, LCAT, NR1H3, PLTP</i>	1.40E-04
GO:0071222~cellular response to lipopolysaccharide	5	<i>ABCA1, NR1H3, CD14, TNFRSF1B, CXCL5</i>	0.001981
GO:0033344~cholesterol efflux	3	<i>ABCA1, SCARB1, ABCG1</i>	0.012288
GO:0030522~intracellular receptor signaling pathway	3	<i>SREBF1, NR1H2, NR1H3</i>	0.015709
GO:0070328~triglyceride homeostasis	3	<i>SCARB1, LPL, NR1H3</i>	0.016442
GO:0051092~positive regulation of NF-kappaB transcription factor activity	4	<i>S100A12, PRKCQ, S100A8, IL18R1</i>	0.017257
GO:0015914~phospholipid transport	3	<i>SCARB1, PCTP, PLTP</i>	0.018815
GO:0042789~mRNA transcription from RNA polymerase II promoter	3	<i>SREBF1, NR1H2, NR1H3</i>	0.026375
<i>CAD_vs_control_HDL_norm</i>			
GO:0006898~receptor-mediated endocytosis	4	<i>ITGAM, CD14, APOE, LDLR</i>	7.15E-04
GO:0042632~cholesterol homeostasis	4	<i>NR1H2, NR1H3, APOE, LDLR</i>	9.28E-04
GO:0010867~positive regulation of triglyceride biosynthetic process	3	<i>NR1H2, NR1H3, LDLR</i>	0.00108
GO:0010875~positive regulation of cholesterol efflux	3	<i>NR1H2, NR1H3, APOE</i>	0.0027
GO:0071222~cellular response to lipopolysaccharide	3	<i>NR1H3, CD14, CXCL5</i>	0.048278
GO:0006629~lipid metabolic process	3	<i>NR1H2, NR1H3, LDLR</i>	0.048278
<i>CAD_vs_control_HDL_high</i>			
GO:0008203~cholesterol metabolic process	7	<i>CUBN, ABCA5, NPC2, HDLBP, LCAT, APOA1, APOE</i>	3.88E-08
GO:0042632~cholesterol homeostasis	6	<i>ABCA5, NPC2, LCAT, NR1H3, APOA1, APOE</i>	6.47E-06
GO:0034375~high-density lipoprotein	4	<i>ABCA5, LCAT, APOA1, APOE</i>	4.30E-05

particle remodeling			
GO:0043691~reverse cholesterol transport	4	<i>ABCA5, LCAT, APOA1, APOE</i>	4.69E-05
GO:0006869~lipid transport	5	<i>ABCA5, HDLBP, APOA1, PCTP, APOE</i>	8.79E-05
GO:0030301~cholesterol transport	4	<i>ABCA5, NPC2, LCAT, APOA1</i>	8.79E-05
GO:0033344~cholesterol efflux	4	<i>ABCA5, NPC2, APOA1, APOE</i>	1.19E-04
GO:0042158~lipoprotein biosynthetic process	3	<i>LCAT, APOA1, APOE</i>	5.28E-04
GO:0034372~very-low-density lipoprotein particle remodeling	3	<i>LCAT, APOA1, APOE</i>	0.001125
GO:0010745~negative regulation of macrophage derived foam cell differentiation	3	<i>ABCA5, ITGB3, NR1H3</i>	0.002551
GO:0042157~lipoprotein metabolic process	3	<i>OLR1, APOA1, APOE</i>	0.005862
GO:0046889~positive regulation of lipid biosynthetic process	3	<i>NR1H3, APOA1, APOE</i>	0.005882
GO:0010875~positive regulation of cholesterol efflux	3	<i>NR1H3, APOA1, APOE</i>	0.007516
GO:0070328~triglyceride homeostasis	3	<i>NR1H3, APOA1, APOE</i>	0.012466
GO:0006954~inflammatory response	5	<i>IL1R1, S100A12, OLR1, PRKCQ, S100A8</i>	0.013807

CAD_HDL_high_vs_CAD_HDL_low

GO:0008203~cholesterol metabolic process	8	<i>ABCA1, SREBF1, CUBN, SOAT1, NPC2, HDLBP, LCAT, ABCG1</i>	1.26E-08
GO:0006954~inflammatory response	10	<i>IL18RAP, S100A12, OLR1, TLR8, PRKCQ, CYBA, CD14, TLR5, S100A9, S100A8</i>	1.38E-06
GO:0034380~high-density lipoprotein particle assembly	4	<i>ABCA1, PRKACG, PRKACA, PRKACB</i>	8.64E-05
GO:0051092~positive regulation of NF-kappaB transcription factor activity	6	<i>IL18RAP, S100A12, PRKCQ, CD36, S100A9, S100A8</i>	3.74E-04
GO:0033344~cholesterol efflux	4	<i>ABCA1, SOAT1, NPC2, ABCG1</i>	8.47E-04
GO:0042632~cholesterol homeostasis	5	<i>ABCA1, SOAT1, NPC2, LCAT, ABCG1</i>	0.001187
GO:0045087~innate immune response	8	<i>SLPI, S100A12, TLR8, CYBA, CD14, TLR5, S100A9, S100A8</i>	0.001565
GO:0032367~intracellular cholesterol transport	3	<i>ABCA1, NPC2, ABCG1</i>	0.009345
GO:0006898~receptor-mediated endocytosis	4	<i>CUBN, AMN, CD14, CD36</i>	0.009345
GO:0043691~reverse cholesterol transport	3	<i>ABCA1, LCAT, ABCG1</i>	0.01341
GO:0010737~protein kinase A signaling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.015112
GO:0003091~renal water homeostasis	3	<i>PRKACG, PRKACA, PRKACB</i>	0.015297
GO:0030301~cholesterol transport	3	<i>NPC2, LCAT, CD36</i>	0.020101
GO:0050832~defense response to fungus	3	<i>S100A12, S100A9, S100A8</i>	0.038815

Molecular function

CAD_vs_control_HDL_low

GO:0034186~apolipoprotein A-I binding	3	<i>ABCA1, SCARB1, LCAT</i>	0.00174
GO:0008035~high-density lipoprotein particle binding	3	<i>ABCA1, SCARB1, PLTP</i>	0.006747
GO:0034185~apolipoprotein binding	3	<i>ABCA1, SCARB1, LPL</i>	0.009818
GO:0031210~phosphatidylcholine binding	3	<i>ABCA1, PCTP, PLTP</i>	0.019847
GO:0005515~protein binding	23	<i>ABCA1, SREBF1, SCARB1, CUBN, ITGAM, IL1R1, NR1H2, HDLBP, NR1H3, LPL, LCAT, PCTP, TNFRSF1B, CXCL5, F5, PRKACG, ALB, S100A12, PRKCQ, CD14, S100A8, IL18R1, ABCG1</i>	0.028031
GO:0008289~lipid binding	4	<i>SCARB1, HDLBP, PCTP, PLTP</i>	0.032265
GO:0004879~RNA polymerase II transcription factor activity, ligand-	3	<i>SREBF1, NR1H2, NR1H3</i>	0.032265

activated sequence-specific DNA binding			
GO:0015485~cholesterol binding	3	<i>ABCA1, NR1H3, ABCG1</i>	0.032265
GO:0005507~copper ion binding	3	<i>ALB, S100A12, F5</i>	0.032867
CAD_vs_control_HDL_norm			
GO:0001540~beta-amyloid binding	3	<i>ITGAM, APOE, LDLR</i>	0.035465
CAD_vs_control_HDL_high			
GO:0019899~enzyme binding	6	<i>SLPI, NPC2, ITGB3, APOA1, APOE, A2M</i>	0.002296
GO:0008289~lipid binding	4	<i>HDLBP, APOA1, PCTP, APOE</i>	0.040497
GO:0015485~cholesterol binding	3	<i>NPC2, NR1H3, APOA1</i>	0.041514
CAD_HDL_high_vs_CAD_HDL_low			
GO:0004691~cAMP-dependent protein kinase activity	3	<i>PRKACG, PRKACA, PRKACB</i>	0.003284
GO:0004679~AMP-activated protein kinase activity	3	<i>PRKACG, PRKACA, PRKACB</i>	0.003284
GO:0015485~cholesterol binding	4	<i>ABCA1, SOAT1, NPC2, ABCG1</i>	0.003284
GO:0050786~RAGE receptor binding	3	<i>S100A12, S100A9, S100A8</i>	0.003726
GO:0005515~protein binding	28	<i>MGST1, HDLBP, LCAT, HMGCN, IL18RAP, PRKACG, S100A12, OLR1, CD14, CD36, PRKACA, PRKACB, ABCA1, SREBF1, CUBN, AMN, CYBA, VEGFA, BMP1, SOAT1, SLPI, NPC2, ALB, PRKCQ, TLR5, S100A9, S100A8, ABCG1</i>	0.004653
GO:0034237~protein kinase A regulatory subunit binding	3	<i>PRKACG, PRKACA, PRKACB</i>	0.014478
Cellular component			
CAD_vs_control_HDL_low			
GO:0005576~extracellular region	11	<i>IL1R1, ALB, LPL, S100A12, LCAT, CD14, TNFRSF1B, PLTP, CXCL5, S100A8, F5</i>	0.004301
GO:0005615~extracellular space	10	<i>ITGAM, ALB, LPL, S100A12, LCAT, CD14, PLTP, CXCL5, S100A8, F5</i>	0.005994
GO:0034364~high-density lipoprotein particle	3	<i>HDLBP, LCAT, PLTP</i>	0.009526
GO:0005886~plasma membrane	15	<i>ABCA1, SCARB1, CUBN, ITGAM, IL1R1, HDLBP, LPL, TNFRSF1B, F5, S100A12, PRKCQ, CD14, S100A8, IL18R1, ABCG1</i>	0.009526
GO:0009897~external side of plasma membrane	5	<i>ABCA1, ITGAM, IL1R1, CD14, ABCG1</i>	0.027062
CAD_vs_control_HDL_norm			
GO:0005615~extracellular space	6	<i>ITGAM, ALB, CD14, APOE, CXCL5, F5</i>	0.015898
GO:0005794~Golgi apparatus	5	<i>ALB, CD14, APOE, LDLR, F5</i>	0.015898
CAD_vs_control_HDL_high			
GO:0034364~high-density lipoprotein particle	4	<i>HDLBP, LCAT, APOA1, APOE</i>	1.30E-04
GO:0005576~extracellular region	11	<i>SLPI, NPC2, IL1R1, S100A12, LCAT, OLR1, APOA1, APOE, A2M, S100A8, F5</i>	1.51E-04
GO:0005615~extracellular space	9	<i>SLPI, NPC2, S100A12, LCAT, APOA1, APOE, A2M, S100A8, F5</i>	0.003577
GO:0070062~extracellular exosome	9	<i>CUBN, SLPI, NPC2, ITGB3, LCAT, APOA1, APOE, A2M, S100A8</i>	0.006161
GO:0043235~receptor complex	4	<i>CUBN, ITGB3, OLR1, NR1H3</i>	0.014958
GO:0005886~plasma membrane	12	<i>CUBN, ABCA5, IL1R1, ITGB3, HDLBP, S100A12, OLR1, APOA1, PRKCQ, APOE, S100A8, F5</i>	0.027313
CAD_HDL_high_vs_CAD_HDL_low			
GO:0005794~Golgi apparatus	10	<i>ABCA1, CUBN, BMP1, SLPI, ALB, CYBA, CD14, CD36, ABCG1, VEGFA</i>	7.47E-04
GO:0005886~plasma membrane	19	<i>ABCA1, CUBN, AMN, MGST1, HDLBP,</i>	7.47E-04

		<i>CYBA, IL18RAP, S100A12, OLR1, TLR8, PRKCQ, CD14, CD36, TLR5, PRKACA, S100A9, PRKACB, S100A8, ABCG1</i>	
GO:0005615~extracellular space	12	AMN, BMP1, SLPI, NPC2, ALB, S100A12, LCAT, CD14, CD36, S100A9, S100A8, VEGFA	7.47E-04
GO:0005952~cAMP-dependent protein kinase complex	3	<i>PRKACG, PRKACA, PRKACB</i>	0.001839
GO:0005576~extracellular region	11	<i>BMP1, SLPI, NPC2, ALB, S100A12, LCAT, OLR1, CD14, S100A9, S100A8, VEGFA</i>	0.005825
GO:0070062~extracellular exosome	11	<i>CUBN, AMN, SLPI, NPC2, ALB, LCAT, CD14, PRKACA, S100A9, PRKACB, S100A8</i>	0.005825
GO:0005789~endoplasmic reticulum membrane	8	<i>ABCA1, SREBF1, SOAT1, MGST1, TLR8, CYBA, HMGCR, ABCG1</i>	0.006797
GO:0005783~endoplasmic reticulum	8	<i>SREBF1, CUBN, SOAT1, NPC2, ALB, MGST1, HMGCR, VEGFA</i>	0.007427
GO:0097546~ciliary base	3	<i>PRKACG, PRKACA, PRKACB</i>	0.016254
GO:0031526~brush border membrane	3	<i>CUBN, AMN, CD36</i>	0.022847
GO:0043235~receptor complex	4	<i>CUBN, AMN, OLR1, CD36</i>	0.022847
GO:0030139~endocytic vesicle	3	<i>ABCA1, CUBN, AMN</i>	0.022847
GO:0009897~external side of plasma membrane	5	<i>ABCA1, TLR8, CD14, CD36, ABCG1</i>	0.022847
GO:0045121~membrane raft	4	<i>ABCA1, OLR1, CD14, CD36</i>	0.024664
GO:0010008~endosome membrane	4	<i>CUBN, AMN, TLR8, CD14</i>	0.02972
GO:0035579~specific granule membrane	3	<i>OLR1, CYBA, CD36</i>	0.032019
GO:0005768~endosome	4	<i>ABCA1, CUBN, CYBA, ABCG1</i>	0.042646
GO:0034774~secretory granule lumen	3	<i>S100A12, S100A9, S100A8</i>	0.045402

The data sorted by the FDR value were analyzed by DAVID tool with three genes count as a lower threshold value.

Supplementary Table 2. Pathway analysis by Reactome for CAD versus control and CAD versus CAD comparisons differentially expressed genes in three patient groups with different HDL-C levels.

Term	Gene Count	Gene	FDR
<i>CAD_vs_control_HDL_low</i>			
R-HSA-174824~Plasma lipoprotein assembly, remodeling, and clearance	12	<i>ABCA1, SCARB1, CUBN, PRKACG, NR1H2, ALB, HDLBP, LPL, LCAT, NR1H3, PLTP, ABCG1</i>	1.97E-16
R-HSA-9024446~NR1H2 and NR1H3-mediated signaling	6	<i>ABCA1, SREBF1, NR1H2, NR1H3, PLTP, ABCG1</i>	4.22E-06
R-HSA-382551~Transport of small molecules	12	<i>ABCA1, SCARB1, CUBN, PRKACG, NR1H2, ALB, HDLBP, LPL, LCAT, NR1H3, PLTP, ABCG1</i>	5.37E-06
R-HSA-8963899~Plasma lipoprotein remodeling	5	<i>ALB, LPL, LCAT, PLTP, ABCG1</i>	3.18E-05
R-HSA-9029569~NR1H3 & NR1H2 regulate gene expression linked to cholesterol transport and efflux	5	<i>ABCA1, NR1H2, NR1H3, PLTP, ABCG1</i>	3.18E-05
R-HSA-8964043~Plasma lipoprotein clearance	5	<i>SCARB1, CUBN, NR1H2, HDLBP, NR1H3</i>	3.18E-05
R-HSA-8964058~HDL remodeling	4	<i>ALB, LCAT, PLTP, ABCG1</i>	3.18E-05
R-HSA-8964011~HDL clearance	3	<i>SCARB1, CUBN, HDLBP</i>	0.001224
R-HSA-9029558~NR1H2 & NR1H3 regulate gene expression linked to lipogenesis	3	<i>SREBF1, NR1H2, NR1H3</i>	0.003898
R-HSA-9006931~Signaling by Nuclear Receptors	6	<i>ABCA1, SREBF1, NR1H2, NR1H3, PLTP, ABCG1</i>	0.007395
R-HSA-556833~Metabolism of lipids	8	<i>ABCA1, SREBF1, CUBN, PRKACG, NR1H2, ALB, NR1H3, PCTP</i>	0.013933
R-HSA-1989781~PPARA activates gene expression	4	<i>ABCA1, SREBF1, NR1H2, NR1H3</i>	0.033649
R-HSA-400206~Regulation of lipid metabolism by PPARalpha	4	<i>ABCA1, SREBF1, NR1H2, NR1H3</i>	0.033649
<i>CAD_vs_control_HDL_norm</i>			
R-HSA-174824~Plasma lipoprotein assembly, remodeling, and clearance	5	<i>NR1H2, ALB, NR1H3, APOE, LDLR</i>	1.52E-05
R-HSA-8964043~Plasma lipoprotein clearance	4	<i>NR1H2, NR1H3, APOE, LDLR</i>	1.08E-04
R-HSA-9029569~NR1H3 & NR1H2 regulate gene expression linked to cholesterol transport and efflux	3	<i>NR1H2, NR1H3, APOE</i>	0.011374
R-HSA-9024446~NR1H2 and NR1H3-mediated signaling	3	<i>NR1H2, NR1H3, APOE</i>	0.013795
R-HSA-382551~Transport of small molecules	5	<i>NR1H2, ALB, NR1H3, APOE, LDLR</i>	0.024792
R-HSA-8957275~Post-translational protein phosphorylation	3	<i>ALB, APOE, F5</i>	0.040875
R-HSA-381426~Regulation of Insulin-like Growth Factor (IGF) transport and uptake by Insulin-like Growth Factor Binding Proteins (IGFBPs)	3	<i>ALB, APOE, F5</i>	0.040875
<i>CAD_vs_control_HDL_high</i>			
R-HSA-174824~Plasma lipoprotein assembly, remodeling, and clearance	8	<i>CUBN, NPC2, HDLBP, LCAT, NR1H3, APOA1, APOE, A2M</i>	2.80E-09
R-HSA-8964043~Plasma lipoprotein clearance	6	<i>CUBN, NPC2, HDLBP, NR1H3, APOA1, APOE</i>	2.47E-07

R-HSA-382551~Transport of small molecules	9	<i>CUBN, ABCA5, NPC2, HDLBP, LCAT, NR1H3, APOA1, APOE, A2M</i>	5.55E-04
R-HSA-8964011~HDL clearance	3	<i>CUBN, HDLBP, APOA1</i>	0.00117
R-HSA-8964058~HDL remodeling	3	<i>LCAT, APOA1, APOE</i>	0.00419
R-HSA-8963898~Plasma lipoprotein assembly	3	<i>APOA1, APOE, A2M</i>	0.013154
R-HSA-76002~Platelet activation, signaling and aggregation	5	<i>ITGB3, APOA1, PRKCQ, A2M, F5</i>	0.019744
R-HSA-114608~Platelet degranulation	4	<i>ITGB3, APOA1, A2M, F5</i>	0.025521
R-HSA-76005~Response to elevated platelet cytosolic Ca ²⁺	4	<i>ITGB3, APOA1, A2M, F5</i>	0.025521
R-HSA-8963899~Plasma lipoprotein remodeling	3	<i>LCAT, APOA1, APOE</i>	0.025521
R-HSA-109582~Hemostasis	6	<i>ITGB3, OLR1, APOA1, PRKCQ, A2M, F5</i>	0.043956

CAD_HDL_high_vs_CAD_HDL_low

R-HSA-174824~Plasma lipoprotein assembly, remodeling, and clearance	13	<i>ABCA1, CUBN, AMN, HDLBP, LCAT, BMP1, SOAT1, NPC2, PRKACG, ALB, PRKACA, PRKACB, ABCG1</i>	2.03E-17
R-HSA-8963896~HDL assembly	5	<i>ABCA1, BMP1, PRKACG, PRKACA, PRKACB</i>	2.19E-07
R-HSA-168249~Innate Immune System	16	<i>MGST1, CYBA, SLPI, NPC2, PRKACG, S100A12, OLR1, TLR8, PRKCQ, CD14, CD36, TLR5, PRKACA, S100A9, PRKACB, S100A8</i>	3.91E-07
R-HSA-382551~Transport of small molecules	13	<i>ABCA1, CUBN, AMN, HDLBP, LCAT, BMP1, SOAT1, NPC2, PRKACG, ALB, PRKACA, PRKACB, ABCG1</i>	3.72E-06
R-HSA-8963898~Plasma lipoprotein assembly	5	<i>ABCA1, BMP1, PRKACG, PRKACA, PRKACB</i>	4.77E-06
R-HSA-168256~Immune System	18	<i>MGST1, CYBA, VEGFA, IL18RAP, SLPI, NPC2, PRKACG, S100A12, OLR1, TLR8, PRKCQ, CD14, CD36, TLR5, PRKACA, S100A9, PRKACB, S100A8</i>	2.37E-05
R-HSA-5260271~Diseases of Immune System	5	<i>CD14, CD36, TLR5, S100A9, S100A8</i>	2.37E-05
R-HSA-5602358~Diseases associated with the TLR signaling cascade	5	<i>CD14, CD36, TLR5, S100A9, S100A8</i>	2.37E-05
R-HSA-6798695~Neutrophil degranulation	10	<i>SLPI, NPC2, MGST1, S100A12, OLR1, CYBA, CD14, CD36, S100A9, S100A8</i>	3.59E-05
R-HSA-8964043~Plasma lipoprotein clearance	5	<i>CUBN, AMN, SOAT1, NPC2, HDLBP</i>	3.94E-05
R-HSA-168898~Toll-like Receptor Cascades	7	<i>S100A12, TLR8, CD14, CD36, TLR5, S100A9, S100A8</i>	5.62E-05
R-HSA-5602498~MyD88 deficiency (TLR2/4)	4	<i>CD14, CD36, S100A9, S100A8</i>	1.54E-04
R-HSA-5603041~IRAK4 deficiency (TLR2/4)	4	<i>CD14, CD36, S100A9, S100A8</i>	1.71E-04
R-HSA-5686938~Regulation of TLR by endogenous ligand	4	<i>CD14, CD36, S100A9, S100A8</i>	2.57E-04
R-HSA-163358~PKA-mediated phosphorylation of key metabolic factors	3	<i>PRKACG, PRKACA, PRKACB</i>	7.37E-04
R-HSA-8964011~HDL clearance	3	<i>CUBN, AMN, HDLBP</i>	7.37E-04
R-HSA-4420097~VEGFA-VEGFR2 Pathway	5	<i>PRKACG, CYBA, PRKACA, PRKACB, VEGFA</i>	0.001185
R-HSA-1236975~Antigen processing-Cross presentation	5	<i>CYBA, CD14, CD36, S100A9, S100A8</i>	0.001406
R-HSA-194138~Signaling by VEGF	5	<i>PRKACG, CYBA, PRKACA, PRKACB, VEGFA</i>	0.001486

R-HSA-166058~MyD88:MAL(TIRAP) cascade initiated on plasma membrane	5	<i>S100A12, CD14, CD36, S100A9, S100A8</i>	0.001601
R-HSA-168188~Toll Like Receptor TLR6:TLR2 Cascade	5	<i>S100A12, CD14, CD36, S100A9, S100A8</i>	0.001601
R-HSA-181438~Toll Like Receptor 2 (TLR2) Cascade	5	<i>S100A12, CD14, CD36, S100A9, S100A8</i>	0.001609
R-HSA-168179~Toll Like Receptor TLR1:TLR2 Cascade	5	<i>S100A12, CD14, CD36, S100A9, S100A8</i>	0.001609
R-HSA-1643685~Disease	14	<i>ABCA1, CUBN, AMN, CYBA, VEGFA, PRKACG, TLR8, CD14, CD36, TLR5, PRKACA, S100A9, PRKACB, S100A8</i>	0.001609
R-HSA-9010642~ROBO receptors bind AKAP5	3	<i>PRKACG, PRKACA, PRKACB</i>	0.001686
R-HSA-8964058~HDL remodeling	3	<i>ALB, LCAT, ABCG1</i>	0.002024
R-HSA-9634600~Regulation of glycolysis by fructose 2,6-bisphosphate metabolism	3	<i>PRKACG, PRKACA, PRKACB</i>	0.002849
R-HSA-556833~Metabolism of lipids	9	<i>ABCA1, SREBF1, CUBN, PRKACG, ALB, HMGCR, CD36, PRKACA, PRKACB</i>	0.002928
R-HSA-166016~Toll Like Receptor 4 (TLR4) Cascade	5	<i>S100A12, CD14, CD36, S100A9, S100A8</i>	0.002986
R-HSA-1280218~Adaptive Immune System	9	<i>PRKACG, PRKCQ, CYBA, CD14, CD36, PRKACA, S100A9, PRKACB, S100A8</i>	0.002986
R-HSA-442720~CREB1 phosphorylation through the activation of Adenylate Cyclase	3	<i>PRKACG, PRKACA, PRKACB</i>	0.003411
R-HSA-109582~Hemostasis	8	<i>PRKACG, ALB, OLR1, PRKCQ, CD36, PRKACA, PRKACB, VEGFA</i>	0.004212
R-HSA-392517~Rap1 signalling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.004212
R-HSA-164378~PKA activation in glucagon signalling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.004626
R-HSA-422356~Regulation of insulin secretion	4	<i>PRKACG, CD36, PRKACA, PRKACB</i>	0.005335
R-HSA-163615~PKA activation	3	<i>PRKACG, PRKACA, PRKACB</i>	0.006075
R-HSA-5621575~CD209 (DC-SIGN) signaling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.006522
R-HSA-111931~PKA-mediated phosphorylation of CREB	3	<i>PRKACG, PRKACA, PRKACB</i>	0.006975
R-HSA-1236974~ER-Phagosome pathway	4	<i>CD14, CD36, S100A9, S100A8</i>	0.007245
R-HSA-163560~Triglyceride catabolism	3	<i>PRKACG, PRKACA, PRKACB</i>	0.0077
R-HSA-5668599~RHO GTPases Activate NADPH Oxidases	3	<i>CYBA, S100A9, S100A8</i>	0.0077
R-HSA-180024~DARPP-32 events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.008823
R-HSA-163685~Integration of energy metabolism	4	<i>PRKACG, CD36, PRKACA, PRKACB</i>	0.011077
R-HSA-163359~Glucagon signaling in metabolic regulation	3	<i>PRKACG, PRKACA, PRKACB</i>	0.013283
R-HSA-1989781~PPARA activates gene expression	4	<i>ABCA1, SREBF1, HMGCR, CD36</i>	0.013283
R-HSA-400206~Regulation of lipid metabolism by PPARalpha	4	<i>ABCA1, SREBF1, HMGCR, CD36</i>	0.013441
R-HSA-8963899~Plasma lipoprotein remodeling	3	<i>ALB, LCAT, ABCG1</i>	0.013441
R-HSA-111997~CaM pathway	3	<i>PRKACG, PRKACA, PRKACB</i>	0.014929
R-HSA-8979227~Triglyceride metabolism	3	<i>PRKACG, PRKACA, PRKACB</i>	0.014929

R-HSA-111933~Calmodulin induced events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.014929
R-HSA-111996~Ca-dependent events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.016233
R-HSA-9664323~FCGR3A-mediated IL10 synthesis	3	<i>PRKACG, PRKACA, PRKACB</i>	0.016417
R-HSA-8853659~RET signaling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.016417
R-HSA-381676~Glucagon-like Peptide-1 (GLP1) regulates insulin secretion	3	<i>PRKACG, PRKACA, PRKACB</i>	0.01759
R-HSA-9660821~ADORA2B mediated anti-inflammatory cytokines production	3	<i>PRKACG, PRKACA, PRKACB</i>	0.01759
R-HSA-432040~Vasopressin regulates renal water homeostasis via Aquaporins	3	<i>PRKACG, PRKACA, PRKACB</i>	0.01759
R-HSA-1489509~DAG and IP3 signaling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.01759
R-HSA-9634597~GPER1 signaling	3	<i>PRKACG, PRKACA, PRKACB</i>	0.018893
R-HSA-9024446~NR1H2 and NR1H3-mediated signaling	3	<i>ABCA1, SREBF1, ABCG1</i>	0.020216
R-HSA-8957322~Metabolism of steroids	4	<i>SREBF1, CUBN, ALB, HMGCR</i>	0.021862
R-HSA-112043~PLC beta mediated events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.022683
R-HSA-445717~Aquaporin-mediated transport	3	<i>PRKACG, PRKACA, PRKACB</i>	0.022683
R-HSA-9824443~Parasitic Infection Pathways	4	<i>PRKACG, CYBA, PRKACA, PRKACB</i>	0.023212
R-HSA-9658195~Leishmania infection	4	<i>PRKACG, CYBA, PRKACA, PRKACB</i>	0.023212
R-HSA-112040~G-protein mediated events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.025008
R-HSA-5610785~GLI3 is processed to GLI3R by the proteasome	3	<i>PRKACG, PRKACA, PRKACB</i>	0.02734
R-HSA-5610780~Degradation of GLI1 by the proteasome	3	<i>PRKACG, PRKACA, PRKACB</i>	0.02734
R-HSA-5610783~Degradation of GLI2 by the proteasome	3	<i>PRKACG, PRKACA, PRKACB</i>	0.02734
R-HSA-70171~Glycolysis	3	<i>PRKACG, PRKACA, PRKACB</i>	0.039218
R-HSA-983169~Class I MHC mediated antigen processing & presentation	5	<i>CYBA, CD14, CD36, S100A9, S100A8</i>	0.039324
R-HSA-9664433~Leishmania parasite growth and survival	3	<i>PRKACG, PRKACA, PRKACB</i>	0.043122
R-HSA-9662851~Anti-inflammatory response favouring Leishmania parasite infection	3	<i>PRKACG, PRKACA, PRKACB</i>	0.043122
R-HSA-438064~Post NMDA receptor activation events	3	<i>PRKACG, PRKACA, PRKACB</i>	0.043578

The data sorted by the FDR value were analyzed by DAVID tool with three genes count as a lower threshold value.