

Table S4A: List of genes from significantly enriched canonical pathways in grafted EC at different time points

Pathways	ZH Symbols	ZH P_value	12H Symbols	12H P_value	24H Symbols	24H P_value	7D Symbols	7D P_value	30D Symbols	30D P_value	
Prothrombin Activation	NA	#VALUE!	COL1A2, COL1A1, KLRB1, PROS1, THBD, COL3A1, TGFBR1, IFI16, TAF13, HSPA5, FCGRI1A, SMARCA4, IL1R2, HSPA4, NFAT5, PKC2, CCL2, BMS1, VPR1, PIK3CG, HSPAP, AKT3, SERPINE1, MMP1 (includes EG-112), TAF12 (includes EG-688), IL1R, TAF9, SELE, GRB2, MAP3K1, HSPA9, HSPA2, PIK3R3, HSPA8, RAS2, IL1RN, SMARCA2, CDKN1A, FBXP4, TGFBR3, HSP90AA1, IL1B, AZM1, BTK, PIK3R3, RAS2, GRB2, PLCG2, PIK3CG, SYK, LYN	0.26444261	NA	COL1A2, COL1A1, COL3A1	0.55662144	COL1A2, COL1A1, COL3A1	0.06257036		
Glucocorticoid Receptor Signaling	IL8, SELE, HSPA1A, JAK2, NFKB1, BCL2, IL1R2, GT2B, CDKN1A, NFATC2, IL1B, SERPINE1, CSF2	0.003235937	#VALUE!	IL8, SELE, HSPA1A, JAK2, NFKB1, BCL2, IL1R2, GT2B, CDKN1A, NFATC2, IL1B, SERPINE1, CSF2	0.110917482	IL8, SELE, HSPA1A, JAK2, NFKB1, BCL2, IL1R2, GT2B, CDKN1A, NFATC2, IL1B, SERPINE1, CSF2	0.023988329	IL8, VCAM1, SELE, TGFBR1, IL6, HSPA5, CD163, NR1C1, FCGRI1A, HSPA2, BCL2, CCL2, PKC2, IL1RN, PIK3CG, CDKN1A, SERPINE1, STAT1, ESR1	0.557185749	CDKN1A	0.523600437
Fcg RIB Signaling in B Lymphocytes	NA	#VALUE!	PIK3R3, PTPN6, GNL1, GNB3, RAS2, GUCY1A3, PIK3CG, CDKN1A, GNS5, GNG2, CDKN1B, GUCY1B3	0.247742208	PIK3R3, PTPN6, GNL1, GNB3, RAS2, GUCY1A3, PIK3CG, CDKN1A, GNS5, GNG2, CDKN1B, GUCY1B3	0.207491352	PIK3R3, PTPN6, GNL1, GNB3, RAS2, GUCY1A3, PIK3CG, CDKN1A, GNS5, GNG2, CDKN1B, GUCY1B3	0.008709636	BTK, PIK3CG, SYK, LYN	0.521194711	0.521194711
Antiproliferative Role of SSTR2	CDKN1A, GNG2	0.479733449	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.257039578	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.257039578	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.000831764	PAK1, PRKCD, PIK3CG, ITGA5, CD14, CSF1R, PRKCB	0.363078055	NA
Macropinositosis Signaling	ARF6, PRKCB	0.44874539	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.257039578	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.257039578	PIK3R3, ARF6, RAS2, PDGFA, PRKCD, PLCG2, PIK3CG, ITGB8, ITGB7, PRKCB	0.000831764	PAK1, PRKCD, PIK3CG, ITGA5, CD14, CSF1R, PRKCB	0.363078055	NA
GPCR Signaling	GRP95, RGS16, RGS12, NFKB1, ADRA1A, PRKCB	0.221309471	ADRA2B, PLCB2, RGS12, CREB5, PDE4D, PIK3CG, RGS10, HTR7, AKT3, RGS14, ADORA3, GRK4, EDNRB, OPRM1, GRB2, GNAO1, PKAR2A, PDE4B, PIK3R3, PLCB4, RAS2, GNAO1, GPR65, ADRA2A, ADORA2A, ADORA1A, PRKCB	0.251767693	ADRA2B, PLCB2, RGS12, CREB5, PDE4D, PIK3CG, RGS10, HTR7, AKT3, RGS14, ADORA3, GRK4, EDNRB, OPRM1, GRB2, GNAO1, PKAR2A, PDE4B, PIK3R3, PLCB4, RAS2, GNAO1, GPR65, ADRA2A, ADORA2A, ADORA1A, PRKCB	0.251767693	ADRA2B, PLCB2, RGS12, CREB5, PDE4D, PIK3CG, RGS10, HTR7, AKT3, RGS14, ADORA3, GRK4, EDNRB, OPRM1, GRB2, GNAO1, PKAR2A, PDE4B, PIK3R3, PLCB4, RAS2, GNAO1, GPR65, ADRA2A, ADORA2A, ADORA1A, PRKCB	0.003467369	CCRS, CKR5, CD4, ITGA2, ITGAL, PIK3R3, RAS2, PRKCD, PIK3CG, PIK3CB, ITGB5, ITGA4, PRKCB	0.331894458	NA
NF-kB Activation by Viruses	CD4, NFKB1, PRKCB	0.230674719	AKT3, ITGAL, PRKCB	0.564936973	AKT3, ITGAL, PRKCB	0.564936973	AKT3, ITGAL, PRKCB	0.008709636	ITGAL, ITGB7, CD9E, ITGAM, ITGA11, F3HA, PTPN6, INSR, ITGA7	0.30974193	ITGA4
Caveolar-mediated Endocytosis Signaling	NA	#VALUE!	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.111943788	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.111943788	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.004738028	FLNA, PLNC, ITGAV, CD48, ITGA5, ACTG2 (includes EG-72), ACTG1, ITGA4	0.30974193	ITGA4
CXCR4 Signaling	RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.111943788	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.111943788	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.111943788	PLCB2, CD4, MYL5, GNB3, GNAO1, PTK2, GNB3, GNL1, PIK3CG, AKT3, PAX, CXCR4, EGR1, GNAO1, ITPR1, PIK3R3, MYL9 (includes EG-10398), PLCB4, RND3, CD4, EGR1, GNAO1, GNG2, PRKCB	0.004738028	FLNA, PLNC, ITGAV, CD48, ITGA5, ACTG2 (includes EG-72), ACTG1, ITGA4	0.30974193	ITGA4
Fc Epsilon R1 Signaling	FCER1G, CSF2, LCP2, PRKCB	0.17538805	FCER1G, CSF2, LCP2, PRKCB	0.17538805	FCER1G, CSF2, LCP2, PRKCB	0.17538805	FCER1G, CSF2, LCP2, PRKCB	0.006309573	BTK, PRKCD, PIK3CG, SYK, VAV3, FCER1G, LYN, PIK3CG, PIK3CB, LCP2, PRKCB	0.194088588	NA
IL-8 Signaling	IL8, ITGAM, RND3, NCF2, CYBB, HBEFG, GNA13, GNG2, NFKB1, BCL2, PRKCB, IRAK2	0.00047863	IL8, ITGAM, RND3, NCF2, CYBB, HBEFG, GNA13, GNG2, NFKB1, BCL2, PRKCB, IRAK2	0.00047863	IL8, ITGAM, RND3, NCF2, CYBB, HBEFG, GNA13, GNG2, NFKB1, BCL2, PRKCB, IRAK2	0.00047863	IL8, ITGAM, RND3, NCF2, CYBB, HBEFG, GNA13, GNG2, NFKB1, BCL2, PRKCB, IRAK2	0.020892961	NCF2, CYBB, GNG2, PRKCB	0.185780446	NA
IL-4 Signaling	NFATC2, JAK2	0.477529274	PIK3R3, IL2RG, PTPN6, NFAT5, RAS2, GRB2, PIK3CG, HMG2A1, AKT3	0.506990708	PIK3R3, IL2RG, PTPN6, NFAT5, RAS2, GRB2, PIK3CG, HMG2A1, AKT3	0.506990708	PIK3R3, IL2RG, PTPN6, NFAT5, RAS2, GRB2, PIK3CG, HMG2A1, AKT3	0.001174898	HLA-DQB1, HLA-DMA, IL2RG, PIK3CG, HLA-DRA, HLA-DQA1, HMG2A1, HLA-DMB, NR3C1	0.158854675	HLA-DRA, HLA-DQA1
GM-CSF Signaling	CSF2RA (includes EG-1438), JAK2, CSF2, PRKCB	0.081283052	RUNX1, BCL2L1, PIK3CG	0.125025903	RUNX1, BCL2L1, PIK3CG	0.125025903	RUNX1, BCL2L1, PIK3CG	0.004142538	CAMK2D, CAMK2A, PIK3CG, LYN, RUNX1, STAT1, GNAO1, CAMK2G, PRKCB	0.107646521	NA
IL-6 Signaling	IL1R2, IL8, IL18, IL18, JAK2, TNFAIP6, NFKB1	0.009772372	IL1R2, IL8, IL18, IL18, JAK2, TNFAIP6, NFKB1	0.009772372	IL1R2, IL8, IL18, IL18, JAK2, TNFAIP6, NFKB1	0.009772372	IL1R2, IL8, IL18, IL18, JAK2, TNFAIP6, NFKB1	0.021379621	COL1A1, IL8, IL18, CYP19A1, IL1RN, TNFRSF1A, SFR, CD14, MAP4K4, MAP2K3, IL6, TNFRSF11B	0.0616595	COL1A1, IL18
NFAT in Reg of the IR	CD4, FCER1G, NFATC2, GNAO1, GNG2, NFKB1, LCP2, RCAN1	0.037155523	CD4, FCER1G, NFATC2, GNAO1, GNG2, NFKB1, LCP2, RCAN1	0.037155523	CD4, FCER1G, NFATC2, GNAO1, GNG2, NFKB1, LCP2, RCAN1	0.037155523	CD4, FCER1G, NFATC2, GNAO1, GNG2, NFKB1, LCP2, RCAN1	0.000144544	IL8, VCAM1, PLCB2, MAPK6, MMP2, CSTB, BCL2, HMOX1, RHOG, CCRND, PRKCD, PIK3CG, KDR, PIK3CG, PIK3CB, LCP2, PRKCB	0.0616595	HLA-DRA, HLA-DQA1
Aldosterone Sig in Epithelial Cells	NA	#VALUE!	IL8, TLR1, IL1A, CD4, TLR2, IL1R, IL18, CD4, HLA-A, CD80, IL1RN, FCER1G, IL18, TLR3, TNFSF13B	0.251767693	IL8, TLR1, IL1A, CD4, TLR2, IL1R, IL18, CD4, HLA-A, CD80, IL1RN, FCER1G, IL18, TLR3, TNFSF13B	0.251767693	IL8, TLR1, IL1A, CD4, TLR2, IL1R, IL18, CD4, HLA-A, CD80, IL1RN, FCER1G, IL18, TLR3, TNFSF13B	0.006918331	TM6SF1, VCAM1, CXCR4, MMP14, MMP2, NCF4, ACTG1, BTK, ARHGAP9, TIMP1, CLDN1, PIK3CG, VAV3, PRKCD, NCF2, CYBB, VAV1, ACTG2 (includes EG-72), MMP19, ITGA4, MSN, PRKCB	0.040738028	CLDN1, ITGA4
Innate and Adaptive Immune Cells	IL8, IL1R, CD4, CD4, FCER1G, IL18, CSF2	0.009772372	IL8, IL1R, CD4, CD4, FCER1G, IL18, CSF2	0.009772372	IL8, IL1R, CD4, CD4, FCER1G, IL18, CSF2	0.009772372	IL8, IL1R, CD4, CD4, FCER1G, IL18, CSF2	0.006918331	TM6SF1, VCAM1, CXCR4, MMP14, MMP2, NCF4, ACTG1, BTK, ARHGAP9, TIMP1, CLDN1, PIK3CG, VAV3, PRKCD, NCF2, CYBB, VAV1, ACTG2 (includes EG-72), MMP19, ITGA4, MSN, PRKCB	0.040738028	CLDN1, ITGA4
Leukocyte Extravasation Signaling	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.095499259	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.095499259	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.095499259	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.003630781	PLCB2, PDIA3, MYL5, GNB1, GNL1, PLCE1, RHOG, ADCY5, PIK3CG, GATA6, ARHGFE3, GRB2, ARHGFE15, ITPR1, MYL6B, PIK3R3, MYL9 (includes EG-10398), PLCB4, RAS2, PRKCD, GNAO1, PPR1R12B, PPR1R12A, ARHGFE3, GNG2, GNG2, PRKCB	0.040738028	CLDN1, ITGA4
Thrombin Signaling	RND3, GNAO1, GNG2, NFKB1, PRKCB	0.298538262	RND3, GNAO1, GNG2, NFKB1, PRKCB	0.298538262	RND3, GNAO1, GNG2, NFKB1, PRKCB	0.298538262	RND3, GNAO1, GNG2, NFKB1, PRKCB	0.004168694	PSAT1, PLCB2, MAOB, PLCE1, BHMT, PDIA3, CHKA, PHGDH, GOT1, PLC2, PLCL1, SHMT2	0.029512092	NA
Glycine, Serine and Threonine Metabolism	NA	#VALUE!	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.095499259	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.095499259	ITGAM, ARHGAP9, CLDN1, NCF2, CYBB, NCF4, PRKCB	0.003630781	PLCB2, PDIA3, MYL5, GNB1, GNL1, PLCE1, RHOG, ADCY5, PIK3CG, GATA6, ARHGFE3, GRB2, ARHGFE15, ITPR1, MYL6B, PIK3R3, MYL9 (includes EG-10398), PLCB4, RAS2, PRKCD, GNAO1, PPR1R12B, PPR1R12A, ARHGFE3, GNG2, GNG2, PRKCB	0.040738028	CLDN1, ITGA4
Calcium-induced T Lymphocyte Apoptosis	CD4, NR4A1, FCER1G, NFATC2, PRKCB	0.032359366	CD4, NR4A1, FCER1G, NFATC2, PRKCB	0.032359366	CD4, NR4A1, FCER1G, NFATC2, PRKCB	0.032359366	CD4, NR4A1, FCER1G, NFATC2, PRKCB	0.00676083	HLA-DQB1, HLA-DMA, PRKCD, CD4, HLA-DRA, HLA-DQA1, FCER1G, HLA-DMB, ITPR1, ATP2A2, PRKCB	0.021877616	HLA-DRA, HLA-DQA1
Endothelin-1 Signaling	MYC, GNAO1, PRKCB	0.615176873	MYC, GNAO1, PRKCB	0.615176873	MYC, GNAO1, PRKCB	0.615176873	MYC, GNAO1, PRKCB	0.001202264	PLCB2, EDNRB, GUCY1A3, PDIA3, CASP4, ITPR1, PLC2, LAMB2, CASP6, HMOX1, PLCE1, ADCY5, PIK3CG, PRKCD, GNAO1, GUCY1A2, EDNRB, CASP8, PLC2, GUCY1B3, PRKCB, CASP10	0.016218101	NA
Cdc42 Signaling	NA	#VALUE!	NA	#VALUE!	NA	#VALUE!	NA	0.233887724	DRA, ARPC4, FCER1G, PPR1R12A, VAV1, ITGA4	0.01	HLA-DRA, HLA-DQA1, ITGA4
G2/M DNA Damage Checkpoint Reg	CDKN1A	0.619441075	CDKN1A	0.619441075	CDKN1A	0.619441075	CDKN1A	0.625172693	CDKN1A, TOP2A, MDM2, CHEK2, CCR3, PLCB2, CXCR4, GNAO1, PTK2, PLCB4, RAS2, CCL4, CCL2, CCL7, PLCG2, PIK3CG, PPR1R12B, PPR1R12A, PRKCB	0.009332543	CDKN1A, TOP2A
Chemokine Signaling	CCL4, CCL7, PRKCB	0.230674719	CCL4, CCL7, PRKCB	0.230674719	CCL4, CCL7, PRKCB	0.230674719	CCL4, CCL7, PRKCB	0.015488166	PLCB2, EDNRB, GUCY1A3, PDIA3, CASP4, ITPR1, PLC2, LAMB2, CASP6, HMOX1, PLCE1, ADCY5, PIK3CG, PRKCD, GNAO1, GUCY1A2, EDNRB, CASP8, PLC2, GUCY1B3, PRKCB, CASP10	0.008317638	NA
RhoA Signaling	ARHGAP9, GNA13	0.623734835	ARHGAP9, GNA13	0.623734835	ARHGAP9, GNA13	0.623734835	ARHGAP9, GNA13	0.295120923	PSAT1, PLCB2, MAOB, PLCE1, BHMT, PDIA3, CHKA, PHGDH, GOT1, PLC2, PLCL1, SHMT2	0.007624271	WASP1

PI3K Signaling in B Lymphocytes	ATF3, NFATC2, NFKB1, PRKCB	0.297166603	PLCB2, ATF3, ITPR1, BTK, PTPRC, PLCB4, RRSAS2, NFAT5, PICE1, CD180, VAV3, PLCG2, PIK3CG, SYK, LYN, AKT3, VAV1, PIK3AP1, PRKCB	0.291071712	PLCB2, PDIA3, ITPR1, PTPRC, BTK, PLCB4, PICE1, RRSAS2, CD180, PIK3CG, SYK, LYN, PIK3CB, VAV1, PIK3AP1, PIK3CD, PRKCB	0.034673685	PLCB2, PDIA3, ITPR1, PLCCL2, PTPRC, BTK, CAMK2A, CAMK2D, PICE1, CD180, BCL10, VAV3, PIK3CG, SYK, LYN, VAV1, PIK3AP1, PLCCL1, CAMK2G, PRKCB	0.007413102	NA	#VALUE!
LXR/RXR Activation	IL1R2, IL18, CCL7, IL18, NFKB1	0.035481339	IL1A, ECHS1, IL6, IL1R2, APOC1, IL18, CCL2, CCL7, IL1RN, IL1B, TLR3, LRP, PLTP, HMGBR, HADH	0.079432822	CD14, IL18, IL6, HMGBR, HLA-DQB1, PTPRC, HLA-DMA, HLA-DOA, CD80, HLA-DRA, HLA-DQA1, CD86, HLA-DMB, HLA-DMA, HLA-DOA, GRB2, CD4, HLA-DQA1, HLA-DMB, HLA-DQB1, PIK3R3, RRSAS2, CD80, PIK3CG, HLA-DRA, FCER1G, CD86, PIK3CB, VAV1, PIK3CD, LCP2	0.024547089	CD14, IL18, IL6, HMGBR, HLA-DQB1, PTPRC, HLA-DMA, CD80, HLA-DRA, HLA-DQA1, CD86, HLA-DMB, HLA-DMA, CD4, HLA-DQA1, HLA-DMB, MAP3K5 (includes EG:4217), HLA-DQB1, CAMK2A, CAMK2D, CD80, BCL10, PIK3CG, VAV1, HLA-DRA, FCER1G, CD86, VAV1, LCP2, CAMK2G	0.007413102	IL18	0.348337315
B Cell Development	NA	#VALUE!	NA	#VALUE!	NA	0.005128614	DRA, HLA-DQA1, CD86, HLA-DMB, HLA-DMA, CD4, HLA-DQA1, HLA-DMB, MAP3K5 (includes EG:4217), HLA-DQB1, CAMK2A, CAMK2D, CD80, BCL10, PIK3CG, VAV1, HLA-DRA, FCER1G, CD86, VAV1, LCP2, CAMK2G	0.007079458	HLA-DRA, HLA-DQA1	0.060255959
PKC Signaling in T Lymphocytes	CD4, FCER1G, NFATC2, NFKB1, LCP2	0.117489755	GRB2, CD4, MAP3K1, PIK3R3, NFAT5, RRSAS2, CD80, PLCG2, PIK3CG, VAV3, FCER1G, VAV1, LCP2	0.592925325	LCP2, HLA-DMA, HLA-DOA, PTPN6, GRB2, CD4, HLA-DQA1, HLA-DMB, HLA-DQB1, PIK3R3, CD80, PIK3CG, SYK, HLA-DRA, FCER1G, CD86, PIK3CB, 0.474241985	0.005495409	HLA-DMA, AP152, CD4, HLA-DQA1, TRAT1, HLA-DMB, HLA-DQB1, CD80, PPM1J, PIK3CG, SYK, HLA-DRA, FCER1G, CD86, PTP2R1B, LCP2, IL2RG, IL12A, TYROBP, CD83, IL6, ACTG1, IL18, CAMK2A, CAMK2D, CD80, FSCN1, HLA-DRA, CD86, ACTG2 (includes EG:72), LTBR, CAMK2G, TLR2, IL8, TLR1, TREM1, IL18, CCL2, CCL7, TYROBP, ITGA5, CD86, CD83, IL6, PLCB2, PDIA3, PLCCL2, CAMK2A, PICE1, CAMK2D, RORA, PRKCD, GNAO1, MAP2K3, PLCL1, RORB, PRKCB, CAMK2G	0.007079458	HLA-DRA, HLA-DQA1	0.139636836
CTLA4 Signaling in CTL	CD4, FCER1G, JAK2, LCP2	0.171001532	PIK3R3, PTPN6, CD80, GRB2, CD4, PIK3CG, SYK, IL2RG, IL18, HLA-A, CD80, FSCN1, TLR3	0.474241985	PIK3CB, PTPN22	0.000676083	HLA-DMA, AP152, CD4, HLA-DQA1, TRAT1, HLA-DMB, HLA-DQB1, CD80, PPM1J, PIK3CG, SYK, HLA-DRA, FCER1G, CD86, PTP2R1B, LCP2, IL2RG, IL12A, TYROBP, CD83, IL6, ACTG1, IL18, CAMK2A, CAMK2D, CD80, FSCN1, HLA-DRA, CD86, ACTG2 (includes EG:72), LTBR, CAMK2G, TLR2, IL8, TLR1, TREM1, IL18, CCL2, CCL7, TYROBP, ITGA5, CD86, CD83, IL6, PLCB2, PDIA3, PLCCL2, CAMK2A, PICE1, CAMK2D, RORA, PRKCD, GNAO1, MAP2K3, PLCL1, RORB, PRKCB, CAMK2G	0.00691831	HLA-DRA, HLA-DQA1	0.112201845
Dendritic Cells and Natural Killer Cells	IL18, TYROBP, CSF2, NFKB1	0.16904093	IL18, TYROBP, CSF2, NFKB1, IL18, HLA-A, CD80, FSCN1, TLR3	0.349140315	IL2RG, IL18, HLA-A, CD80, FSCN1, TLR3	0.112201845	HLA-DMA, AP152, CD4, HLA-DQA1, TRAT1, HLA-DMB, HLA-DQB1, CD80, PPM1J, PIK3CG, SYK, HLA-DRA, FCER1G, CD86, PTP2R1B, LCP2, IL2RG, IL12A, TYROBP, CD83, IL6, ACTG1, IL18, CAMK2A, CAMK2D, CD80, FSCN1, HLA-DRA, CD86, ACTG2 (includes EG:72), LTBR, CAMK2G, TLR2, IL8, TLR1, TREM1, IL18, CCL2, CCL7, TYROBP, ITGA5, CD86, CD83, IL6, PLCB2, PDIA3, PLCCL2, CAMK2A, PICE1, CAMK2D, RORA, PRKCD, GNAO1, MAP2K3, PLCL1, RORB, PRKCB, CAMK2G	0.0065623413	IL18, HLA-DRA	0.111943788
TREM1 Signaling	IL18, TREM1, IL18, CCL7, TYROBP, IL18, JAK2, CSF2, NFKB1	2.00E-05	TLR1, IL8, TREM1, GRB2, TYROBP, LAT2, IL6, TLR2, NOD2, IL18, CCL2, CCL7, PLCG2, AKT3, IL18, TLR3	0.012022644	TLR2, IL18, CCL2, CCL7, IL18, CD86	0.000691831	ITGA5, CD86, CD83, IL6, PLCB2, PDIA3, PLCCL2, CAMK2A, PICE1, CAMK2D, RORA, PRKCD, GNAO1, MAP2K3, PLCL1, RORB, PRKCB, CAMK2G	0.005623413	IL18	0.325087297
Melatonin Signaling	PRKCB	0.727779805	PLCB2, PLCB4, PICE1, RORA, PRKCD, PLCG2, GNAO1, GNAI1, PRKAR2A, PRKCB	0.368977599	PLCB2, PLCB4, PICE1, PDIA3, PRKCD, GNAO1, PRKAR2A, MAP2K3, RORB, PRKCB	0.054954087	ACTR2, ARPC1B, ARPCS1 (includes EG:81873), MYL5, ARPC5, PIP3K1B, GSN, MYL9 (includes EG:10398), PAK1, RHOG, ARPC2, ARPC4, PPM1R12B, PPM1R12A, ACTG2 (includes EG:72), PIP5CA	0.003090295	NA	#VALUE!
Regulation of Actin-based Motility by Rho	NA	#VALUE!	MYLK, MYL9 (includes EG:10398), ARPC1B, PAK3, ARPCS1 (includes EG:81873), ARPC2, ACTA2, MYL5, PPM1R12B, PPM1R12A, GSN	0.474241985	MYL9 (includes EG:10398), RHOG, PAK3, ARPC2, ACTA2, MYL5, PPM1R12B, PIP5K1B, GSN, MYL6B	0.137088177	HLA-DMA, IL2RG, CD4, CSK, HLA-DQA1, TRAT1, HLA-DMB, ITPR1, HLA-DQB1, PTPRC, CAMK2A, CAMK2D, CD80, PIK3CG, HLA-DRA, FCER1G, VAV1, LCP2, CAMK2G	0.003090295	WASF1	0.348337315
ICOS-ICOSL Signaling in Th Cells	CD4, FCER1G, NFATC2, NFKB1, LCP2	0.1	IL2RG, GRB2, CD4, CSK, ITPR1, PTPRC, PIK3R3, NFAT5, CD80, PIK3CG, FCER1G, AKT3, VAV1, LCP2	0.434510224	NA	0.000851138	KIF23, CCNB1, CDC20, PTTG1, PRCL1, CCNB3, CDMB2, PLK1, CENK1, CDC25B, PLK4, PPM1J, PPM1R12B, NF11, CDC25A	0.002344229	HLA-DRA, HLA-DQA1	0.130918192
Mitotic Roles of Polo-Like Kinase	NA	#VALUE!	CDC25B, PLK2, CDK7, HSP90A1, PPP2R1B, CHEK2	0.751622894	NA	#VALUE!	IL12A, HLA-DQA1, HLA-DMB, CD83, IL6, CREB5, FCGRI1A, COL1A2, CD1A, PIK3CG, HLA-DRA, LTBR, STAT1, TNFRSF11B, HLA-DMA, TNFRSF1A, TYROBP, TLR2, HLA-DQB1, COL1A1, IL18, CD80, IL1RN, FSCN1, FCER1G, CD86, IFNAR1, COL3A1	0.00018197	NA	#VALUE!
Dendritic Cell Maturation	IL18, TYROBP, CD1A, FCER1G, IL18, JAK2, CSF2, NFKB1	0.033113112	IL1A, LEP, TYROBP, MYD88, IL6, CREB5, FCGRI1A, COL1A2, PIK3R3, TLR2, COL3A1, IL18, CD80, HLA-A, IL1RN, CD1A, PIK3CG, FSCN1, FCER1G, AKT3, IL18, TLR3, COL3A1	0.247742206	HLA-DMA, HLA-DOA, IL1A, TYROBP, HLA-DQA1, HLA-DMB, CD83, IL6, FCGRI1A, PIK3R3, HLA-DQB1, TLR2, IL18, CD80, IL1RN, CD1A, PIK3CG, HLA-DRA, FCER1G, CD86, IL18, PIK3CB, PIK3CD, COL3A1	0.002884032	HLA-DMA, IL2RG, IL12A, TGFBR1, TNFRSF1A, HLA-DQA1, HLA-DMB, IL6, HLA-DQB1, IL18, CD80, HLA-DMB, IL6	0.000109648	COL1A2, COL1A1, IL18, HLA-DRA, HLA-DQA1, COL3A1	0.000446684
T Helper Cell Differentiation	IL18, FCER1G, IL18R1	0.230674719	IL6ST, IL2RG, IL18, TGFBR1, CD80, FCER1G, IL6, BCL6, IL18R1	0.493173804	CD80, HLA-DRA, HLA-DQA1, FCER1G, CD86, HLA-DMB, IL6	0.013182567	DRA, IL10R8, FCER1G, CD86, STAT1, TNFRSF11B, AB12, ARPC1B, F2R, DIAPH3, ARPCS5, MYL5, MYH11, PIP5K1B, FGF13, IQGAP2, PAK1, PIK3CG, ARPC4, ACTG2 (includes EG:72), PIP5CA, SSH2, ITGA4, ACTR2, ARPCS1 (includes EG:81873), CSK, ITGA5, GSN, ACTG1, TTN, MYL9 (includes EG:10398), TIAM2 (includes EG:26230), VAV3, ARPC2, PPM1R12B, PPM1R12A, CD14, VAV1, NCKAP1L, MSN	0.000109648	IL18, HLA-DRA, HLA-DQA1	0.017378008
Actin Cytoskeleton Signaling	GNAI13, NCKAP1L, FGF19 (includes EG:9965)	0.707945784	AB12, ARPC1B, PDGFA, ACTA2, MYL5, MYL3, MYH11, PDGFR, FGF13, PTP2, MYL4, PIK3CG, LBP, FGF16, PXN, ARHGFE12, GRB2, ARPCS1 (includes EG:81873), CSK, GSN, ACTG1, MYL9 (includes EG:10398), PIK3R3, RRSAS2, TIAM2 (includes EG:26230), PAK3, VAV3, ARPC2, ARHGFE6, SSH3, PPM1R12B, PPM1R12A, VAV1, NCKAP1L	0.085113804	PDGFD	0.000851138	NCKAP1L, MSN	0.000102329	WASF1, ITGA4	0.291071712
Fcg Receptor-mediated Phagocytosis	ARF6, CSF2, FYB, LCP2, PRKCB	0.069183097	NAPEPLD, ARPC1B, NCF1C, ACTA2, FCGRI1A, ARF6, RAB11B, PIK3CG, GPD1, HCK, AKT3, FGR, PAN, ARPCS1 (includes EG:81873), FYB, ACTG1, PIK3R3, ARPC2, PIK3CG, SYK, VAV3, LYN, VAV1, LCP2, PRKCB	0.000870964	ACTA2, FYB, FCGRI1A, PIK3R3, ARF6, PRKCD, ARPC2, E2F, PIK3CG, SYK, LYN, HCK, VAV1, LCP2, PRKCB	0.008709636	ACTR2, ARPC1B, ARPCS1 (includes EG:81873), ARPCS5, FYB, FCGRI1A, ACTG1, MYO5A, HMOX1, PAK1, VAV3, SYK, PRKCD, ARPC2, PIK3CG, ARPC4, LYN, VAV1, ACTG2 (includes EG:72), LCP2, PRKCB	8.32E-05	NA	#VALUE!
CD28 Signaling in TH	CD4, FCER1G, NFATC2, NFKB1, LCP2	0.124738351	PTPN6, ARPC1B, ARPCS1 (includes EG:81873), GRB2, CD4, CSK, MAP3K1, ITPR1, PIK3R3, PTPRC, NFAT5, CD80, SYK, PIK3CG, ARPC2, FCER1G, AKT3, VAV1, LCP2	0.176603982	FCER1G, CD86, VAV1, PIK3CB, PIK3CD, LCP2	0.000199526	FCER1G, CD86, VAV1, LCP2	8.32E-05	HLA-DRA, HLA-DQA1	0.142232879

Table S4B: List of genes from significantly enriched canonical pathways in grafted SMC.

Pathways	ZH Symbols	ZH P_value	LZH Symbols	LZH P_value	Z4H Symbols	Z4H P_value	ZD Symbols	ZD P_value	300 Symbols	300 P_value
Mitotic Roles of Polo-Like Kinase	NA	#VALUE!	NA	#VALUE!	NA	#VALUE!	KIF23 (CCNB1, CDC20, PTTG1, PRCL1, CDC7, CCNB2, PLK1, PPP2R5A, CDK1, CDC25B, PLK4, PLK2, PPP2R2B, XIF1, CHEK2)	0.002344229	NA	#VALUE!
Actin Cytoskeleton Signaling	NA	#VALUE!	#VALUE!	0.033884416	MYL9 (includes EG:10398), SHC1, TIAM2 (includes EG:26230), RRSAS2, ARPC1B, GRB2, PPP1R12B, PIK3	0.261818301	MYH10, ARPC1B, DIAPH3, ARPC5, LIMK2, PIP5K1B, MYH7B (includes EG:57644), FGF13, SHC1, FGF10, WASL (includes EG:8976), FGF18, ARPC4, ARPC1A, ACTG2 (includes EG:72), LBP, PPP1CA, ACTN1, ITGA6, MYH1, ACTR2, GRB2, CSK, MYH7, GSN, ACTG1, MYL1, TTN, FGF1, TIAM2 (includes EG:26230), ARPC2, PPP1R12B, CD14, MYH9, PPP1R12A, PIK3CB, NCKAP1, MSN	0.001202264	NA	#VALUE!
Reactive Oxygen in Macrophages	NFKB1	0.256448404	#VALUE!	0.009772372	TNFRSF1A, PPP1R3C, PIK3R2, NOS2, PPP1R14B, PRKCB	0.666806769	PPP1R3C, RHO1, GSK3, MAP3K5 (includes EG:4217), JAK2, PPP2R5A, TUR2, PRKCD, PPP2R2B, C YBB, PPP1R12A, PIK3CB, STAT1, PPP1CA, PRKDI, PRKCB	0.555904257	FOS	0.123304491
IL-10 Signaling	NFKB1	0.223872114	#VALUE!	0.009332543	IL1R2, IL18, IL18R1, IL6	0.566239289	IL18, IL10R8, CD14, ARG2, MAP4K4, IL1R1, LBP, IL6	0.405508535	FOS	0.166341265
NF-kB Signaling	NFKB1	0.250034536	#VALUE!	0.008912509	IL1R2, GHR, RRSAS2, IL1RN, TNFRSF1A, BMP2, PDGF, PIK3CB, IRS1, PRKCB	0.261818301	TLR1, MYD88, MAP4K4, IL1R1, MAL1, TUR2, IL18, GHR, CD40, PIK3CB, EIF2AK2, TLR8, TNFSF13B, IRAK4, PRKCB	0.592925325	NA	#VALUE!
CCR3 Signaling in Eosinophils	NA	#VALUE!	#VALUE!	0.00724436	RRAS2, ITPR2, PPP1R12B, PIK3R2, ITPR1, PRKCB	0.420726628	PLA2G10, ENAH1, CCL2A, LIMK2, ITPR1, PLCB4, PRKCD, PPP1R12B, PPP1R12A, PIK3CB, GNG2, PPP1CA, PRKDI, PRKCB	0.331131121	NA	#VALUE!
Renin-Angiotensin Signaling	NFKB1	0.225423921	#VALUE!	0.00724436	SHC1, RRSAS2, CCL2, GRB2, ITPR2, PIK3R2, ITPR1, PRKARIA	0.174984669	SHC1, CCL2, GRB2, PRKCD, SHC3, PIK3CB, JAK2, ITPR1, STAT1, ADCY7, PRKDI, PRKCB	0.472063041	FOS	0.171790839
RAR Activation	NFKB1	0.263026799	#VALUE!	0.00724436	ALDH1A1, SMARCA2, TGFβ3, SNW1, PIK3R2, CITED2	0.442588372	RHD10, CSK, MAP3K5 (includes EG:4217), JAK2, VEGFA, ALDH1A1, RARA, PRKCD, C RABP2, TGFβ3, PIK3CB, ADCY7, ZBTB16, PRKDI, PRKCB	0.645654229	FOS	0.216271852
ILK Signaling	NFKB1	0.272270131	#VALUE!	0.007079458	RRAS2, PPP1R14B, ITGB7	0.420726628	MYH10, MYH7, RHO1, CREB5, MYH7B (includes EG:57644), ACTG1, PPP2R5A, MYL1, VEGFA, FN1, CF LNA, SNAI2, PPP2R2B, MYH9, PIK3CB, RPS6KA5, AC LNA2 (includes EG:72), ITGB4, ACTN1, MYH1	0.404575892	FOS	0.223357222
Macropinosytosis Signaling	NA	#VALUE!	#VALUE!	0.00676083	RRAS2, PIK3R2, ITGB7, PRKCB	0.423642966	PRKCD, CD14, PIK3CB, ITGB4, PRKDI, PRKCB	0.76913044	NA	#VALUE!
Acute Phase Response Signaling	SERPINE1, NFKB1	0.223872114	#VALUE!	0.00676083	SHC1, ITH3, RRSAS2, GRB2, IL1RN, TNFRSF1A, SERP1, SERPINA1, PIK3R2, IL6, SERPINE1, A2M	0.141905752	ITH3, GRB2, MYD88, C15, C9, IL6, JAK2, IL1R1, MAP3K5 (includes EG:4217), ILK1B1, SHC1, IL18, TF, CRABP2, CFB, SERP1, TNF, MYD88, TLR2, STAT4, COL1A1, IL18, CD40, CD80, FSCN1, CD86, PIK3CB, STAT2, IFNAR1, PRKCB	0.404575892	FOS, C15	0.12246162
Relaxin Signaling	NFKB1	0.233345806	#VALUE!	0.006606934	GNAO1, PDE8B, PIK3R2, PDE4B, NOS2, PDE4D	0.500034535	NA	#VALUE!	FOS	0.187931682
P2Y Purigenic Receptor Sig	NFKB1	0.225423921	#VALUE!	0.006606934	NA	#VALUE!	PLCB4, PLCE1, PRKCD, GNAI1, PIK3CB, GNG2, CREB5, ADCY7, PRKDI, PRKCB	0.805563908	FOS	0.176603782
Dendritic Cell Maturation	NFKB1	0.261818301	#VALUE!	0.006606934	6, FCGR1A	0.427562886	COL3A1	0.002570396	COL1A2, COL1A1, CB08, FCGR1A	0.005248075
IL-1 Signaling	NFKB1	0.223872114	#VALUE!	0.005754399	NA	#VALUE!	NA	#VALUE!	FOS	0.167494288
CXCR4 Signaling	CXCR4	0.256448404	#VALUE!	0.005128614	1, LYN, PIK3R2, ITPR1, PRKCB	0.149279441	GNAI1, RHO1, ITPR1, MYL1, PLCB4, PRKCD, GNAO1, LYN, PIK3CB, GNG2, ADCY7, PRKDI, PRKCB	0.805563908	FOS, EGR1	0.10964782
Chemokine Signaling	CCL4, CXCR4	0.126182753	#VALUE!	0.005128614	CCL4, RRSAS2, CCL2, CCL7, CXCR4, PPP1R12B, PRKCB	0.128233058	PLCB4, CCL4, CAM2D2, CCL2, GNAI1, PPP1R12B, PP1R12A, CCL2A, LIMK2, PPP1CA, PRKCB	0.244906324	FOS	0.166341265

TREM1 Signaling	NFKB1	TLR1,IL8,TREM1,ICAM1,TYROBP,GRB2,LAT2,ITGAS5,IL6,IAK2,NFKB2,NFKB1,TLR2,IL18,CCL7,CCL2,CD40,PLCG2,AKT3,IL18,CD81,PLC82,NFKB1,PTPRC,PLCE1,CAMK2D,NFKBIA,PPP3CB,PIK3CG,AKT3,PIK3R2,NFKBIB,PLCL1,C R2,ATF1,ITPR2,ITPR1,NFKB2,BTK,FOS,PLCB4,PRKC,RRAS2,CD180,DAPK1,CD40,SYK,MYL5,PLCG2,LYN,NFATC2,PIK3CB,PIK3A1,IVAV1,PIK3CD,CAMK2G,PRKCB	0.005011872	IL8,CCL2,CCL7,GRB2,TYROBP,IL6	0.135831345	TLR2,IL8,TLR1,IL18,ICAM1,CCL2,CD40,GRB2,TYRORP,CD86,IAK2,IL6	0.06025959	NA	#VALUE!
PI3K in B Lymphocytes	NFKB1	MAP2K6,HSP91,IL1A,MAP4K4,IL6,IAK2,MAPK13,NFKB1,IL1R2,NFKBIA,NFKBIB,MAPKAPK2,IL8,GRB2,TNFRSF1A,IL1R1,NFKB2,COL1A1,FOS,IL18,RRAS2,IL1RN,IL18,CD14,MAP2K3,TNFAIP6,AZM,PLCB2,CAMK1D,ADCY5,MYL5,GNB5,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.005011872	PTPRC,RRAS2,ITPR2,SYK,LYN,PIK3R2,ITPR1,PRKCB	0.309029543	MALT1,ITPR1,CD79A,PTPRC,BTK,PLCB4,PLCE1,CAMK2D,CD180,CD40,LYN,PIK3CB,PRKCB	0.669884609	FOS	0.193642196
IL-6 Signaling	NFKB1	MAP2K6,HSP91,IL1A,MAP4K4,IL6,IAK2,MAPK13,NFKB1,IL1R2,NFKBIA,NFKBIB,MAPKAPK2,IL8,GRB2,TNFRSF1A,IL1R1,NFKB2,COL1A1,FOS,IL18,RRAS2,IL1RN,IL18,CD14,MAP2K3,TNFAIP6,AZM,PLCB2,CAMK1D,ADCY5,MYL5,GNB5,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.005011872	IL1R2,IL8,SHC1,RRAS2,GRB2,IL1RN,TNFRSF1A,IL1R1,IL18,CD14,MAP2K3,TNFAIP6,AZM	0.066069345	COL1A1,IL8,SHC1,IL18,GRB2,SF,CD14,MAP4K4,IL1R1,IL1R2,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.299916252	COL1A1,FOS	0.0616595
Thrombin Signaling	NFKB1	MAP2K6,HSP91,IL1A,MAP4K4,IL6,IAK2,MAPK13,NFKB1,IL1R2,NFKBIA,NFKBIB,MAPKAPK2,IL8,GRB2,TNFRSF1A,IL1R1,NFKB2,COL1A1,FOS,IL18,RRAS2,IL1RN,IL18,CD14,MAP2K3,TNFAIP6,AZM,PLCB2,CAMK1D,ADCY5,MYL5,GNB5,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.003548134	MYL9 (includes EG:10398),SHC1,RRAS2,GRB2,ITPR2,GNAO1,PPP1R12B,GATAG,PIK3R2,ITPR1,PRKCB	0.261818301	F2RL2,GRB2,ARHGFE15,GNAI1,RHOJ,ITPR1,MYL1,SHC1,PLCB4,CAMK2D,PLCE1,PRKCD,GNAO1,PPP1R12B,PPP1R12A,PIK3CB,ARHGFE3,GN2,ADCY7,PRKQ1,PRKCB	0.404575892	NA	#VALUE!
FMLP Signaling in Neutrophils	NFKB1	MAP2K6,HSP91,IL1A,MAP4K4,IL6,IAK2,MAPK13,NFKB1,IL1R2,NFKBIA,NFKBIB,MAPKAPK2,IL8,GRB2,TNFRSF1A,IL1R1,NFKB2,COL1A1,FOS,IL18,RRAS2,IL1RN,IL18,CD14,MAP2K3,TNFAIP6,AZM,PLCB2,CAMK1D,ADCY5,MYL5,GNB5,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.003548134	RRAS2,ARPC18,ITPR2,PIK3R2,ITPR1,PRKCB	0.414954043	ACTR2,ARPC18,ARPC5,GNAI1,ITPR1,PLCB4,PRKCD,ARPC2,ARPC4,CYBB,ARPC1A,PIK3CB,GN2,PRKCB	0.244906324	NA	#VALUE!
IL-8 Signaling	NFKB1	MAP2K6,HSP91,IL1A,MAP4K4,IL6,IAK2,MAPK13,NFKB1,IL1R2,NFKBIA,NFKBIB,MAPKAPK2,IL8,GRB2,TNFRSF1A,IL1R1,NFKB2,COL1A1,FOS,IL18,RRAS2,IL1RN,IL18,CD14,MAP2K3,TNFAIP6,AZM,PLCB2,CAMK1D,ADCY5,MYL5,GNB5,MAPK13,PTK2,MYLK,GNB4,RHO,GNB3,PLCE1,CAMK2D,ADCY5,PIK3CG,PLCL1,ITPR2,ITPR1,NFKB2,MYL6B,MYL9 (includes EG:10398),RHOQ,PLCG2,GNAO1,ARHGFE6,PPP1R12B,PPP1R12A,PIK3CD,GN2,OPN15W,GNALC,AMK2G,F2RL2,NFKB1,GNL1,GNAT2,AKT3,GATAG,PIK3R2,PRKCA,GRB2,GNAI1,ADCY6,ROCK1,PLCB4,PRKCI,RRAS2,PIK3CB,PRKCB	0.003548134	IL8,ANGPT2,RRAS2,CXCR2,GPLD1,PIK3R2,PTGS2,PRKCB	0.456036916	IL8,VCAM1,ICAM1,GNAI1,LIMK2,RHOJ,MAP4K4,CSTB,BCL2,VEGFA,BCL2L1,CND2,PRKCD,KDR,CYBB,PIK3CB,GN2,IRAK4,PRKQ1,PRKCB	0.325087297	NA	#VALUE!
Endothelin-1 Signaling	NA	#VALUE!	0.000316228	GRB2,ITPR2,ITPR1,MYC,LAMB2,SHC1,RRAS2,GAD1,GPLD1,GNAO1,PIK3R2,PTGS2,NDS2,PRKCB	0.066069345	PLA2G10,SHC3,WISP2,CASP6,SHC1,PLCE1,EDN1,CASP8,PRKQ1,CASP10,EDNRB,GUCY1A3,CASP3,GRB2,YWHAZ,GNAI1,MAPK8,ITPR1,LAMB2,PLCB4,PRKCD,GNAO1,GUCY1A2,PIK3CB,ADCY7,PRKCB	0.06025959	FOS	0.218272991