

Table SI. Top 20 enriched biological processes following GO analysis of the shared upregulated 1,234 genes in differentiated HL-60 cells after 4-h treatment with 1 and 10 µg lipoteichoic acid.

GO term	P-value	Genes	Fold enrichment
GO:0006954, inflammatory response	5.88x10 ⁻³⁹	IL1RN, CSF1, TNF, IL18RAP, TBK1, ZC3H12A, CCRL2, C3AR1, TNFRSF4, MAP2K3, GBP5, ACOD1, TICAM1, FOXP3, IL23A, NINJ1, EPHA2, CCL3L3, FPR2, C3, HRH1, IRAK2, HRH4, NLRP3, IL36RN, GGT5, NKG7, IL36G, NFKB1, CXCL10, LACC1, BMP2, IL6, BCL6, MIR221, REL, NFKBID, MYD88, NFE2L2, NFKBIB, CXCL6, ORM1, CD40, CXCL8, TNFAIP6, TNFAIP3, ADM, CXCL3, CXCL2, CXCL5,	4.686408

		ADGRE2, CASP4, NFKBIZ, FFAR3, OLR1, KDM6B, PTGIR, RIPK2, SPHK1, PLA2G4C, TNFRSF1B, IL1A, HCK, GAL, ADORA2A, IL1B, CHI3L1, MGLL, CD44, CHST2, TLR2, PTGER4, CCL13, CEBPB, PTGER2, PTAFR, PTGS2, THBS1, RELB, CCL8, CCL7, CCL5, CCL4, SPP1, CCL3, CCL2, S1PR3, CCL1, CCL24, CCL23, CCL22, CCL20, P2RX7, TNIP1, TNIP2, TNIP3, IL2RA, PTX3, IL17C	
GO:0071222, cellular response to lipopolysaccharide	8.20x10 ⁻²⁴	CXCL6, CSF3, CD40, CSF2, CXCL8, CD80, SERPINE1, TNFAIP3, CXCL3, TNF, CXCL2, FCAR, CXCL5, ICAM1, ZFP36, ZC3H12A, PDE4B, CAPN2, CASP1,	5.355754

			IL12B, SIRPA, JAK2, IL10, MAP2K3, ACOD1, TICAM1, TNFRSF1B, KMO, IL1A, IL1B, IRF8, CARD16, CD274, CEBPB, SRC, TFPI, SBNO2, CCL2, NLRP3, IL36RN, ABCA1, XBP1, IL36G, NFKB1, ASS1, CXCL10, IL6, LOC102723996, TNIP1, TNIP2, TNIP3, MYD88, NFKBIB	
GO:0006955, immune response	2.21x10 ⁻¹⁹		CXCL6, CSF3, ADAMDEC1, IL1RN, CSF2, CXCL8, CD80, CCL4L2, TNF, CXCL2, FCAR, CXCL5, IL18RAP, RGS1, FTH1, CCRL2, TNFSF10, ENPP2, ITGB8, JAK2, IKBKE, TNFRSF4, IL10, SERPINB9, HLA-A, HLA-F, TNFRSF1B, LAX1, TAPBP, TGFBR3,	3.131584

		CHIT1, IL1A, CLEC4D, IL1B, LTA, IRF8, LTB, CLEC4E, TLR2, PTGER4, CD274, CCL13, CEBPB, IGSF6, SEMA3C, PTAFR, CXCR5, CFP, SLED1, IL2RG, THBS1, PIK3R5, C3, CCL8, NFIL3, IGKC, CCL5, CCL4, CCL3, CCL2, IL36RN, GBP2, IL32, CCL24, XBP1, CCL23, CCL22, CD70, CCL20, TNFSF15, OSM, LOC102723996, CLEC6A, IL2RA, TNFSF9, FAS, TNFSF8, CD24, IL7R	
GO:0071356, cellular response to tumor necrosis factor	4.69x10 ⁻¹⁸	CCL13, CD40, PID1, CXCL8, CCL3L3, THBS1, TANK, CLDN1, FCAR, ZFP36L1, ICAM1, ZFP36, CCL8, CCL7, CCL5, OCSTAMP, CCL4, ZC3H12A, CCL3,	5.343296

		CCL2, CCL1, HES1, CD58, GBP2, GBP1, GBP3, CCL24, CCL23, EDN1, CCL22, CCL20, ERBIN, ACOD1, NFKB1, ASS1, NFKBIA, MIR181B1, CHI3L1, GSDME, NFE2L2	
GO:0071347, cellular response to interleukin-1	3.95x10 ⁻¹⁷	CCL13, CEBPB, CD40, CXCL8, CCL3L3, TFPI, HIF1A, TANK, ICAM1, CCL8, CCL7, CCL5, CCL4, ZC3H12A, CCL3, CCL2, SIRPA, CCL1, HES1, GBP2, GBP1, GBP3, CCL24, CCL23, EDN1, CCL22, CCL20, ACOD1, KMO, NFKB1, CHI3L1	6.71771
GO:0071346, cellular response to interferon-gamma	8.73x10 ⁻¹⁶	CCL13, CCL3L3, TNF, CLDN1, FCAR, ICAM1, CCL8, CCL7, CCL5, CCL4, CASP1, CCL3, IL12B, CCL2, SIRPA, CCL1, CD58, GBP2,	6.107009

			GBP1, GBP4, GBP3, CCL24, GBP5, CCL23, EDN1, CCL22, CCL20, ACOD1, ASS1, IRF8, TLR2	
GO:0007165, transduction	signal	2.05x10 ⁻¹⁵	IL1RN, CD83, IRS1, RAPH1, FGF2, CXCL16, ALCAM, RGS1, PLAU, RASSF4, RASSF5, CLEC5A, NAMPT, TNFSF10, TOM1, ICOSLG, MAP2K3, UTS2R, PRKCH, ZFYVE16, IL23A, ULK2, ROR2, PLPP3, OPTN, PTGES, CD274, NDRG4, RRAD, EPAS1, SH2D2A, CREM, DAPP1, CREBL2, TNFRSF11B, CSF2RB, NDRG2, HIF1A, RASGRP1, TTBK1, SAV1, RAP1B, C3, FAM83G, TP53BP2, ABL2, NLRP3, IL36RN,	2.047279

		PAG1, LYN, RASL10A, TNFSF15, OSGIN1, RASSF8, PILRA, OSGIN2, GNG11, NFKB1, NFKB2, NET1, CXCL10, NR4A1, ARHGAP31, NR4A3, TNFSF9, TNFSF8, PKIG, IL7R, MYD88, LRP12, NFKBIB, CXCL6, CNTNAP1, CXCL8, TNFAIP6, LRRK2, ADM, CXCL5, PDE4B, CASP1, NCK2, JAK2, IL10, RIPK2, TNFRSF18, ANXA5, PLAUR, ARAP2, CEACAM3, RAP2C, VGF, TRAF3, IL1B, RAPGEF1, LTA, LTB, ARHGEF7, HBEGF, TLR2, CCL13, NFAT5, PLEKHH3, SRC, IL2RG, TANK, CCL8, CCL7, CHRNE, CCL4, SPP1, SH3BP5, CCL2,	
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		CHRNA10, CCL1, MAPK6, SH2B3, IL32, CCL24, CCL23, CCL22, MYO10, CD70, CCL20, MACC1, TXNRD1, ERBIN, GPR141, RIT1, P2RX4, TRIP10, FAS, ASB2, AGRN	
GO:0006915, apoptotic process	1.18x10 ⁻¹²	CSRN1P, TNFAIP8, HIP1, NCF1, TNFAIP3, UBE2Z, CASP5, RASSF5, ZC3H12A, CASP4, PEA15, TNFSF10, PIM1, CASP1, PIM3, PIM2, JAK2, PHLDA2, PHLDA1, TP63, IER3, RIPK2, TNFRSF18, KREMEN1, SERPINB9, TRAF1, RNF144B, IL1A, PLSCR1, ADORA2A, TRAF4, ESPL1, TRAF3, IL1B, DDIT4, LTA, CHI3L1, SGK1, SQSTM1, TLR2, BIRC3,	2.441895

		PPP1R15A, NOTCH2, MINDY3, BCL2A1, SEMA3A, TNFRSF11B, PSEN1, NTN1, ZFP36L1, SAV1, DRAM1, CHST11, NLRP3, PMAIP1, RFFL, BID, MCL1, PLK3, XBP1, GADD45B, TNFSF15, TNFRSF9, SIAH2, TAF10, CFLAR, NFKB1, NFKBIA, NR4A1, MARCKS, TNIP2, IL2RA, CYCS, FAS, MYD88, BCL2L1	
GO:0070098, chemokine-mediated signaling pathway	2.64×10^{-12}	CCL24, CXCL6, CCL13, CCL23, CXCL8, CCL22, GPR35, CCL20, CCL3L3, CXCR5, GPR75, CXCL3, CXCL2, CXCL5, CXCL10, CCL8, CCL7, CCL5, CCRL2, CCL4, CCL3, CCL2, CCL1	6.408139
GO:0043547, positive regulation of GTPase	3.04×10^{-11}	CCL13, CD40, CCL3L3, RGS16, ASAP1,	3.714863

activity		RASGRP1, ICAM1, CCL8, CCL7, RGS1, RASGEF1B, CCL5, CCL4, TBC1D30, CCL3, CCL2, CCL1, SNX9, ECT2, WNT4, MAP4K4, CCL24, CCL23, CCL22, CCL20, ARAP2, NET1, RAPGEF1, RAPGEF2, ITGA6, RGL1, ARHGEF7, AGRN, FERMT2, LIMS1, EZH2	
GO:0050729, positive regulation of inflammatory response	3.87x10 ⁻¹¹	PTGER4, CEBPB, SERPINE1, LPL, PLA2G7, TNF, CASP4, NFKBIZ, CASP1, CCL3, IL12B, NLRP3, CCL1, JAK2, LDLR, CCL24, ACE, OSM, NKG7, NFKBIA, GPRC5B, TNIP1, IL23A, IL1B, NINJ1, MIR181B1, TLR2	4.787107
GO:0030593, neutrophil chemotaxis	8.68x10 ⁻¹¹	CCL24, CXCL6, CCL13, CCL23, CXCL8, CCL22, CCL20, CCL3L3, ITGA1,	5.470362

		CXCL3, TREM1, CXCL2, CXCL5, CXCL10, CCL8, CCL7, IL1B, CCL5, CCL4, CCL3, PDE4B, CCL2, CCL1	
GO:0045944, positive regulation of transcription from RNA polymerase II promoter	9.56x10 ⁻¹¹	CSF3, PID1, MAML2, ZNF292, GABPB1, IKZF3, BACH1, FGF2, TNF, ETS2, IL4I1, TBK1, ZMIZ2, ZC3H12A, NAMPT, IER5, JUNB, TP63, HNF1B, MTF, FOXP3, ARMCX3, IL23A, ATF5, SQSTM1, ATF3, EPAS1, GLIS3, CREM, HIF1A, GLIS2, SBNO2, ZNF827, HIVEP1, NLRP3, ZBED1, ZNF267, TFAP2A, STAT5A, ZBTB17, EGR1, MIR9-1HG, AKIRIN1, XBP1, EGR2, EGR3, EGR4, INHBA, POU2F2,	1.862831

		NFKB1, NFKB2, FOSL1, NFKBIA, CXCL10, NR4A1, BMP2, IL6, RGCC, NR4A3, MAFB, LHX2, AGO2, BCL3, MAFF, REL, TNFSF8, ZNF410, NFE2L2, CSRNP1, CD40, DDX3X, MED13, HEY1, SIX5, NCK2, JAK2, IL10, KDM6B, KLF10, EDN1, ANXA2, RIPK2, IL1A, ZEB2, PLSCR1, GAL, NR5A2, MTF1, IL1B, TFEC, IRF8, ITGA6, NCOA7, RHOQ, TLR2, NFAT5, CEBPB, DOT1L, RELB, MLLT6, SERTAD1, STAT4, PLAGL2, HES1, TCF7L2, NFYA, LUM, MACC1, OSM, ACVR2A, TNIP1, TNIP2, TNIP3, FOSB, AGRN	
GO:0030335, positive	3.52x10 ⁻¹⁰	CD274, FLT1, CSF2,	3.099319

regulation of cell migration		SEMA3C, TNFAIP6, CSF1, SEMA3A, PDGFB, PDGFA, THBS1, CLDN1, CXCL16, SDCBP, CCL7, PLAU, CCL5, PDGFC, CCL3, JAK2, MAP4K4, SPAG9, LYN, SEMA4A, CCL24, XBP1, EDN1, SPHK1, SEMA4C, SOD2, F3, BMP2, ADAM17, MMP14, IL1B, SNAI1, MIR181B1, ITGA6, ROR2, FERMT2, HBEGF, EPHA2	
GO:0032496, response to lipopolysaccharide	3.53x10 ⁻¹⁰	PTGER4, CSF1, PTGER2, ADM, CSF2RB, PTGS2, CLDN1, CYP27B1, JAK2, GGT1, GGT5, PTGIR, EDN1, ACE, GCH1, IL10RA, ERBIN, SOD2, FOXP3, NFKB2, P2RX7, NR4A1, GJB2,	3.850917

		ADAM17, IL1B, PELI1, LTA, TAB2, TRIB1, PTGES, TLR2	
GO:0006935, chemotaxis	5.39x10 ⁻¹⁰	CCL13, CXCL6, CXCL8, PTAFR, CXCR5, FPR2, FGF2, CXCL2, CXCL5, CXCL16, CCL8, CCL7, PLAU, CCL5, CCRL2, CCL3, C3AR1, ENPP2, CCL2, CCL1, CCL24, CCL23, CCL22, CCL20, PLAUR, FOSL1, CXCL10	4.281153
GO:0070374, positive regulation of ERK1 and ERK2 cascade	1.82x10 ⁻⁹	NOTCH2, CCL13, NDRG4, SRC, CCL3L3, PDGFB, PDGFA, HMGCR, FPR2, FGF2, RASGRP1, TNF, ICAM1, RAP1B, CCL8, CCL7, CCL5, CCL4, PDGFC, CCL3, CCL2, CCL1, SLAMF1, CCL24, CCL23, CCL22, CCL20, RIPK2, CFLAR, INHBA, IL1A, BMP2, MIR221,	3.151145

			CHI3L1, RAPGEF2, CD44, FERMT2	
GO:0002548, monocyte chemotaxis	3.2x10 ⁻⁹		CCL24, CCL13, CCL23, FLT1, CCL22, CCL20, CCL3L3, PDGFB, IL6, CCL8, CCL7, CCL5, CCL4, CCL3, CCL2, CCL1	6.934411
GO:0048247, lymphocyte chemotaxis	5.25x10 ⁻⁹		CCL24, CCL13, CCL23, CCL22, CCL20, CCL3L3, CXCL16, CCL8, CCL7, CCL5, CCL4, CCL3, CCL2, CCL1	8.03066
GO:0007267, cell-cell signaling	7.31x10 ⁻⁹		CCL13, CXCL6, TNFAIP6, PDGFA, ADRA1B, AREG, CXCL5, PANX1, CCL8, CCL7, CCL5, CCL4, NAMPT, CCL3, TNFSF10, KLF10, CCL24, CCL23, PTGIR, EDN1, CCL22, CD70, CCL20, IL36G, INHBA, CXCL10, BMP2, GJB2,	3.052648

		ADORA2A, IL1B, LTA, TNFSF9, TNFSF8, LTB, FJX1, IL17C	
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GO, Gene Ontology.

Table SII. Top 20 enriched biological processes following GO analysis of the shared upregulated 718 genes in differentiated HL-60 cells after 24-h treatment with 1 and 10 µg lipoteichoic acid.

GO term	P-value	Genes	Fold enrichment
GO:0006954, inflammatory response	1.53x10 ⁻⁴⁵	CXCL6, ORM1, CD40, IL1RN, CXCL8, TNFAIP6, GPR68, ITGB2, TNFAIP3, ADM, CXCL3, CXCL2, CXCL5, HK1, ADGRE2, IL18RAP, ADORA3, ZC3H12A, CCRL2, NFKBIZ, C3AR1, OLR1, CCR5, TNFRSF4, CCR2, HAVCR2, GBP5, PTGIR, ANXA1, IL1R1, SLC11A1, SPHK1, PLA2G4C, CYBB, TNFRSF1B, IL17RA, TLR1, TMIGD3, IL1A, HCK, IL1B, TLR8, TLR6, S100A9, S100A8, CHST2, TLR2, CX3CR1, CSF1R, CEBPB,	6.484338

			SEMA7A, C5AR2, C5AR1, PTAFR, FPR1, LY96, FPR2, NLRC4, PTGS2, MEFV, THBS1, RELB, PTGS1, C3, HRH1, CCL8, CCL7, IFI16, IRAK2, CCL5, CCL4, SPP1, CCL3, S100A12, CCL2, CD14, CCR1, GGT5, CCL24, STAT3, NKG7, P2RX7, LACC1, TNIP3, ACER3, SIGLEC1, FCGR2B, IL18R1	
GO:0006955, immune response	8.39x10 ⁻¹⁷		IFITM3, CXCL6, ADAMDEC1, IL1RN, CXCL8, GPR65, SECTM1, CXCL2, FCAR, CXCL5, IL18RAP, RGS1, FTH1, CCRL2, TNFSF10, ENPP2, ITGB8, CCR5, IKBKE, TNFRSF4, CCR2, IL4R, IL1R1, SLC11A1, SERPINB9,	3.578846

		TNFRSF1B, CLEC4A, TLR1, IL1A, IL1B, TLR8, TLR6, CLEC4E, TLR2, CX3CR1, CD274, CEBPB, SEMA7A, IGSF6, MARCHF1, C5AR1, PTAFR, THBS1, C3, CCL8, CCL5, CCL4, CCL3, CCL2, FCGR1A, GBP2, IL32, CCR1, CCL24, LILRB2, FCGR2B, IL7R, IL18R1	
GO:0071222, cellular response to lipopolysaccharide	9.07x10 ⁻¹⁶	CX3CR1, CD274, CXCL6, CEBPB, CD40, CXCL8, SRC, TNFAIP3, LY96, NOD2, CXCL3, CXCL2, FCAR, CXCL5, ICAM1, ZFP36, SBNO2, ZC3H12A, CASP1, CAPN2, CCL2, CD14, CCR5, HAVCR2, LILRB1, LILRB2, TNFRSF1B, KMO, ASS1, IL1A, IL1B, TNIP3, VIM, CARD16,	5.505426

			PPARD	
GO:0007165, transduction	signal	1.26x10 ⁻¹⁵	IL1RN, OLFML2B, RAPH1, CXCL16, CCND3, RGS3, RGS1, RASSF4, DPYSL2, RASSF5, ADORA3, NAMPT, RASSF6, TNFSF10, TNFRSF8, MAP3K6, IL4R, ANK2, ZFYVE16, ADGRB1, S100A6, RIN2, PLPP1, CSF1R, CD274, PXN, C5AR1, FPR1, DAPP1, CSF2RB, IQGAP1, NDRG2, CORO1C, C3, ARHGAP20, RRAS, MICAL1, SRGAP2, PAG1, S100A11, LYN, RASSF8, PILRA, ARHGAP26, GNG11, ARHGAP24, TNFRSF10D, NFKB2, ARHGAP31, NR4A3, IL7R, NRP1, CXCL6, CXCL8, TNFAIP6,	2.372131

		LRRK2, SECTM1, ADM, ARRB2, CXCL5, NRGN, SMPD1, CASP1, PDE4A, CCR5, ANXA1, TNFRSF18, ANXA5, PLAUR, CEACAM3, TMIGD3, TLR1, IL1B, PECAM1, TLR6, HBEGF, TLR2, SRC, RETN, TYMP, CCL8, CCL7, GPNMB, CCL4, SPP1, SH3BP5, CCL2, FCGR1A, SH2B2, IL32, CCL24, MACC1, STAT3, LILRB1, LILRB2, TRIP10, FCGR2B, AGRN, IL18R1	
GO:0030593, neutrophil chemotaxis	1.46x10 ⁻¹³	CCL24, CXCL6, CXCL8, FCER1G, ITGB2, C5AR1, CXCL3, TREM1, CXCL2, CXCL5, LGALS3, CCL8, JAML, CCL7, IL1B, CCL5, CCL4, CCL3,	8.144961

		S100A12, CCL2, S100A9, S100A8	
GO:0006935, chemotaxis	2.14x10 ⁻¹³	CX3CR1, RIPOR2, CXCL6, CXCL8, C5AR2, C5AR1, PTAFR, FPR1, FPR2, CXCL2, CXCL5, CXCL16, TYMP, CCL8, CCL7, CCL5, CCRL2, CCL3, C3AR1, ENPP2, CCL2, CCR5, CCR2, CCR1, CCL24, PLAUR	6.417242
GO:0045766, positive regulation of angiogenesis	4.64x10 ⁻¹²	CX3CR1, NRP1, CD40, CXCL8, C5AR1, ITGB2, ADM, THBS1, C3, RRAS, ZC3H12A, C3AR1, ITGAX, EMILIN2, CYP1B1, HMOX1, CTSH, ITGB8, CCL24, ANXA3, SPHK1, STAT3, CYBB, PRKCA, F3, HIPK2, IL1A, IL1B	5.183157
GO:0030335, positive regulation of cell migration	5.47x10 ⁻¹²	CD274, CSF1R, SEMA7A, TNFAIP6,	4.1184

		SEMA3A, ILK, PDGFA, THBS1, CXCL16, CCL7, GPNMB, CCL5, CCL3, ITGAX, CTSH, SEMA6B, CCR1, ACVR1, LYN, TCAF2, CCL24, SPHK1, STAT3, SEMA4C, PRKCA, SOD2, MMP9, F3, DAB2, MMP14, IL1B, CASS4, PECAM1, HBEGF, FERMT3	
GO:0007166, cell surface receptor signaling pathway	3.31x10 ⁻¹¹	CD274, IFITM1, IGSF6, SIGLEC9, MS4A7, LY96, FPR2, ASGR2, ADGRE1, MILR1, ADGRE2, ADGRE3, CCL2, MS4A14, CD14, CCR5, FCGR1A, GPR157, CCR1, ANXA1, IL1R1, GP1BA, LILRB2, LILRB3, MERTK, IL17RA, P2RX7, CLEC4A, MS4A6A, PTPRC, FCGR2A,	3.682833

		ADGRB1, PECAM1, FCGR2B, IL7R, CD101, BIRC3	
GO:0032760, positive regulation of tumor necrosis factor production	4.39x10 ⁻¹¹	SASH3, ORM1, LRRK2, STAT3, PTAFR, CYBB, LY96, PTPRJ, NOD2, THBS1, LILRA5, TLR1, IL1A, PTPRC, OAS1, OAS3, CCL3, TNFRSF8, CD14, CCR2, HAVCR2, TLR2	6.184137
GO:0070098, chemokine-mediated signaling pathway	7.75x10 ⁻¹¹	CCR1, CX3CR1, CCL24, CXCL6, CXCL8, GPR35, CXCL3, CXCL2, CXCL5, CCL8, CCL7, CCL5, CCRL2, CCL4, CCL3, CCL2, CCR5, CCR2	7.806469
GO:0006915, apoptotic process	3.05x10 ⁻¹⁰	HIP1, NCF1, GPR65, ITGB2, SRA1, TNFAIP3, BBC3, LGALS1, CASP5, ADAMTSL4, RASSF5, ZC3H12A, RASSF6, PEA15, TNFSF10, PIM1, CASP1, CTSH,	2.650741

		PHLDA2, PHLDA1, ZNF385A, IER3, TNFRSF18, SERPINB9, TRAF1, MMP9, RNF144B, IL1A, PLSCR1, MELK, IL1B, DDIT4, SGK1, S100A9, S100A8, TLR2, BIRC3, PPARD, BCL2A1, SEMA3A, C5AR1, NLRC4, ZFP36L1, EPB41L3, CD14, JUN, GSN, TNFRSF9, TNFRSF10D, NFKBIA, SH3RF3, DAB2, MARCKS	
GO:0019221, cytokine-mediated signaling pathway	3.06×10^{-10}	LILRA6, CSF1R, EBI3, CSF2RB, PTPRJ, CSF2RA, LILRA5, IRAK2, IL21R, CCL2, JAK3, SH2B2, CCR2, CCR1, IL4R, IL10RA, STAT3, LILRB1, LILRB2, LILRB3, F3, IL1A, HCK, IL1B, IL7R	4.865143

GO:0071356, cellular response to tumor necrosis factor	4.43x10 ⁻¹⁰	CCL24, CD40, PID1, VCAM1, CXCL8, THBS1, FCAR, ASS1, ZFP36L1, IL18BP, ICAM1, NFKBIA, ZFP36, CCL8, CCL7, CCL5, CCL4, ZC3H12A, CCL3, CYP1B1, CCL2, GBP2, GBP3, GSDME	4.990437
GO:0045087, innate immune response	5.69x10 ⁻¹⁰	ITGAM, NCF1, NCF2, CLEC10A, SLA, PRDM1, TREM1, IFIT3, HK1, LGALS3, JAK3, HAVCR2, FCER1G, ANXA1, CYBB, PARP9, IL17RA, CLEC4A, TLR1, HCK, OAS1, OAS3, ADGRB1, IRF7, TLR8, TLR6, CLEC4E, S100A9, S100A8, TLR2, CX3CR1, CSF1R, C1QA, SRC, LY96, NLRC4, NOD2, MEFV, RELB, LILRA5, IFI16, S100A12, FYN, CD14,	2.635462

		FCGR1A, SLC15A3, LYN, MX2, SIGLEC10, PARP14, MCOLN2, LACC1	
GO:0050729, positive regulation of inflammatory response	3.01x10 ⁻⁹	CCL24, CEBPB, ACE, NKG7, NLRC4, PLA2G7, LILRA5, IL17RA, NFKBIA, LGALS1, IL1B, NFKBIZ, CASP1, CCL3, S100A12, S100A9, LDLR, S100A8, CCR2, TLR2	5.519726
GO:0008285, negative regulation of cell proliferation	3.31x10 ⁻⁹	CSF1R, CDKN1A, IFITM1, BTG2, CXCL8, ADM, PTPRJ, PTGS2, THBS1, DLL1, IFIT3, DNAJB2, GPNMB, CLMN, RASSF5, ADORA3, FTH1, LMNA, CYP1B1, TNFRSF8, S100A11, CDKN2D, LYN, TFAP2A, CDKN2B, JUN, CDKN2C,	2.813395

		NIBAN2, TNFRSF9, STAT3, DLEC1, KLF4, SOD2, TMIGD3, IL1A, ALDH1A2, IL1B, ADGRB1, CD9, ATF5, PLPP1, GSDME, TLR2	
GO:0008360, regulation of cell shape	7.87x10 ⁻⁹	CCL24, CSF1R, ANXA1, ITGB2, LPAR1, ARHGAP18, S100B, ICAM1, FMNL3, HCK, FMNL2, CCL7, EPB41L3, CCL3, PLXNB3, PLXNB2, CCL2, PLXNA1, FYN, RHOU, PLXNC1, ALDOA, PLXNA3	4.504808
GO:0070374, positive regulation of ERK1 and ERK2 cascade	1x10 ⁻⁸	CSF1R, NRP1, SEMA7A, SRC, C5AR2, C5AR1, PDGFA, ARRB2, FPR2, NOD2, ICAM1, P2RY6, CCL8, CCL7, GPNMB, GLIPR2, CCL5, CCL4, CCL3, CCL2, HAVCR2, CCR1, CCL24, JUN,	3.711955

		PRKCA, NRG1, IL1A, PTPRC	
GO:0032731, positive regulation of interleukin-1 beta production	1.95x10 ⁻⁸	GBP5, ORM1, PYHIN1, STAT3, NLRC4, NOD2, MEFV, LILRA5, HK1, P2RX7, IFI16, CASP1, CCL3, TLR8, TLR6	7.005806

GO, gene ontology.

Table SIII. Top 20 enriched KEGG pathways of the shared upregulated 1,234 genes in differentiated HL-60 cells after 4-h treatment with 1 and 10 µg lipoteichoic acid.

KEGG term	P-value	Genes	Fold enrichment
hsa04060: Cytokine-cytokine receptor interaction	9.23x10 ⁻¹⁹	CXCL6, CSF3, CD40, IL1RN, CSF2, CXCL8, CSF1, CCL4L2, CXCL3, TNF, CXCL2, CXCL5, CXCL16, IL18RAP, TNFSF10, IL12B, TNFRSF4, IL10, IL15RA, IFNGR2, TNFRSF18, TNFRSF1B, IL1A, IL23A, IL1B, IL3RA, LTA, LTB, CCL13, CCL3L3, EBI3, CXCR5, CSF2RB, TNFRSF11B, IL2RG, CCL8, CCL7, CCL5, CCL4, IL21R, CCL3, CCL2, IL36RN, CCL1, IL32, CCL24, CCL23, CCL22, CD70, CCL20, TNFSF15, IL10RA, TNFRSF9, OSM, IL36G, INHBA, ACVR2A, CXCL10, BMP2, IL6, IL2RA, TNFSF9, FAS, TNFSF8, IL7R, IL17C	3.363761

hsa04668: TNF signaling pathway	9.44x10 ⁻¹⁴	CXCL6, CEBPB, CSF2, CSF1, TNFAIP3, CXCL3, PTGS2, TNF, CXCL2, CXCL5, ICAM1, SOCS3, CCL5, CCL2, MAP3K8, JUNB, MAP2K3, EDN1, CCL20, CFLAR, TRAF1, TNFRSF1B, NFKB1, NFKBIA, CXCL10, MMP14, IL6, TRAF3, IL1B, BCL3, LTA, FAS, TAB2, BIRC3	4.564194
hsa04061: Viral protein interaction with cytokine and cytokine receptor	1.17x10 ⁻¹³	CCL13, CXCL6, CXCL8, CSF1, CCL4L2, CCL3L3, CXCR5, CXCL3, IL2RG, TNF, CXCL2, CXCL5, CCL8, IL18RAP, CCL7, CCL5, CCL4, CCL3, TNFSF10, CCL2, CCL1, IL10, CCL24, CCL23, CCL22, CCL20, IL10RA, TNFRSF1B, CXCL10, IL6, IL2RA, LTA	4.811197
hsa05417: Lipid and atherosclerosis	9.24x10 ⁻¹²	CD40, CXCL8, NCF1, SRC, CCL3L3, CXCL3, TNF, TANK, CXCL2, ICAM1, RAP1B, TBK1, CCL5,	3.146859

		CASP1, CCL3, TNFSF10, IL12B, CCL2, OLR1, NLRP3, JAK2, BID, IKBKE, LDLR, ABCA1, LYN, MAP2K3, XBP1, HSPA2, POU2F2, TICAM1, SOD2, NFKB1, NFKBIA, IL6, PLCB4, TRAF3, IL1B, FAS, CYCS, TAB2, MYD88, BCL2L1, NFE2L2, TLR2	
hsa04064: NF-kappa B signaling pathway	1.42x10 ⁻¹¹	CCL13, CD40, CXCL8, BCL2A1, CCL4L2, TNFAIP3, CXCL3, PTGS2, TNF, CXCL2, RELB, ICAM1, PLAU, CCL4, LYN, GADD45B, CFLAR, TRAF1, TICAM1, NFKB1, NFKB2, NFKBIA, TRAF3, IL1B, LTA, TAB2, LTB, MYD88, BIRC3, BCL2L1	4.337017
hsa04657: IL-17 signaling pathway	3.41x10 ⁻¹¹	CXCL6, CEBPB, CSF3, CSF2, CXCL8, TNFAIP3, CXCL3, PTGS2, TNF, CXCL2, CXCL5, TBK1, CCL7, CCL2, MAPK6,	4.478508

		IKBKE, CCL20, NFKB1, NFKBIA, FOSL1, CXCL10, IL6, TRAF4, TRAF3, IL1B, FOSB, TAB2, IL17C	
hsa04621: NOD-like receptor signaling pathway	1.93x10 ⁻¹⁰	CXCL8, TNFAIP3, CXCL3, TNF, TANK, CXCL2, PANX1, TBK1, CASP5, CCL5, CASP4, NAMPT, CASP1, CCL2, NLRP3, GBP2, GBP1, IKBKE, GBP4, GBP3, GABARAPL2, GBP5, RIPK2, NEK7, ERBIN, TICAM1, NFKB1, P2RX7, NFKBIA, IL6, PLCB4, TRAF3, IL1B, TAB2, CARD16, MYD88, BIRC3, BCL2L1, NFKBIB	3.186764
hsa05169: Epstein-Barr virus infection	3.2x10 ⁻⁹	CDKN1A, CD40, TNFAIP3, TNF, RELB, ICAM1, TBK1, CCND2, CCND1, HES1, CD58, BID, JAK3, IKBKE, LYN, MAP2K3, GADD45B, HLA-A, HLA-F, RUNX3, NFKB1, TAPBP, NFKB2, NFKBIA, CCNA1, FCER2, CXCL10, IL6, CCNE2,	2.902795

		TRAF3, NEDD4, FAS, CYCS, TAB2, NFKBIE, CD44, MYD88, NFKBIB, TLR2	
hsa05162: Measles	2.27x10 ⁻⁸	CLEC4M, TNFAIP3, IL2RG, IFIH1, TBK1, CCND2, CCND1, IL12B, BID, JAK3, IKBKE, SLAMF1, STAT5A, HSPA2, NFKB1, NFKBIA, IL1A, IL6, CCNE2, TRAF3, IL1B, IL2RA, RAB9A, FAS, CYCS, TAB2, MYD88, BCL2L1, NFKBIB, TLR2	3.244962
hsa04620: Toll-like receptor signaling pathway	4.97x10 ⁻⁸	CD40, CXCL8, CCL4L2, CCL3L3, CD80, TNF, TBK1, CCL5, CCL4, CCL3, SPP1, IL12B, MAP3K8, IKBKE, MAP2K3, TICAM1, NFKB1, NFKBIA, CXCL10, IL6, TRAF3, IL1B, TAB2, MYD88, TLR2	3.61418
hsa05145: Toxoplasmosis	5.29x10 ⁻⁸	LAMA5, CD40, LAMC1, TNF, PIK3R5, SOCS1, IL12B, JAK2, LDLR, IL10, MAP2K3, LAMB3, IL10RA, IFNGR2, HSPA2, NFKB1, NFKBIA,	3.490266

		PPIF, CYCS, ITGA6, TAB2, MYD88, BIRC3, BCL2L1, NFKBIB, TLR2	
hsa04062: Chemokine signaling pathway	1.04x10 ⁻⁷	CCL13, CXCL6, CXCL8, NCF1, SRC, CCL4L2, CCL3L3, CXCR5, CXCL3, CXCL2, CXCL5, CXCL16, PIK3R5, RAP1B, CCL8, CCL7, CCL5, CCL4, CCL3, CCL2, CCL1, JAK2, JAK3, LYN, CCL24, CCL23, CCL22, CCL20, GNG11, NFKB1, NFKBIA, CXCL10, HCK, PLCB4, NFKBIB	2.740754
hsa05323: Rheumatoid arthritis	1.13x10 ⁻⁷	CXCL6, FLT1, CXCL8, CSF2, CSF1, CCL20, CCL3L3, CD80, CXCL3, CXCL2, TNF, CXCL5, ICAM1, IL1A, IL6, IL23A, IL1B, CCL5, CCL3, ATP6V1B2, CCL2, LTB, TLR2	3.718331
hsa04630: JAK-STAT signaling pathway	2.17x10 ⁻⁷	CDKN1A, CSF3, CSF2, PDGFB, PDGFA, CSF2RB, IL2RG, SOCS3, SOCS1, CCND2, CCND1, PIM1,	2.877066

		STAT4, IL21R, IL12B, JAK2, JAK3, MCL1, IL10, STAT5A, IL15RA, CISH, IL10RA, IFNGR2, OSM, IL6, IL23A, IL2RA, IL3RA, IL7R, BCL2L1	
hsa04625: C-type lectin receptor signaling pathway	2.17×10^{-7}	IL10, PLK3, EGR2, EGR3, CCL22, CLEC4M, SRC, PTGS2, TNF, NFKB1, RELB, NFKB2, NFKBIA, IL6, CLEC4D, IL23A, IL1B, CLEC6A, BCL3, CASP1, IL12B, NLRP3, CLEC4E, IKBKE	3.469613
hsa05134: Legionellosis	5.16×10^{-7}	CXCL8, HSPA2, CXCL3, CXCL2, TNF, NFKB1, NFKB2, C3, NFKBIA, IL6, IL1B, CASP1, IL12B, CYCS, SEC22B, MYD88, TLR2	4.48412
hsa05200: Pathways in cancer	7.17×10^{-7}	CDKN1A, CXCL8, LAMC1, FGF2, CCND2, HEY1, CCND1, RASSF5, PIM1, IL12B, PIM2, JAK2, JAK3, IL15RA, EDN1, IFNGR2, MITF, TRAF1, CCNA1,	1.868756

		PLCB4, COL4A2, TRAF4, CCNE2, TRAF3, IL23A, IL3RA, ITGA6, BIRC3, PTGER4, NOTCH2, LAMA5, EPAS1, PTGER2, PDGFB, PDGFA, CSF2RB, IL2RG, PTGS2, RASGRP1, HIF1A, STAT4, PMAIP1, HES1, VHL, BID, WNT4, STAT5A, TCF7L2, ZBTB17, CDKN2B, GADD45B, LAMB3, TXNRD1, GNG11, NFKB1, NFKB2, NFKBIA, BMP2, KITLG, IL6, IL2RA, CYCS, FAS, IL7R, NFE2L2, BCL2L1	
hsa05142: Chagas disease	2.53x10 ⁻⁶	IL10, ACE, CXCL8, IFNGR2, CCL3L3, SERPINE1, CFLAR, TICAM1, TNF, NFKB1, C3, NFKBIA, IL6, PLCB4, IL1B, CCL5, CCL3, FAS, IL12B, CCL2, MYD88, TLR2	3.242841
hsa05167: Kaposi sarcoma-associated herpesvirus infection	3.78x10 ⁻⁶	CDKN1A, CSF2, CXCL8, SRC, PDGFB, CXCL3, PTGS2, FGF2, HIF1A, CXCL2, PIK3R5, ICAM1, C3,	2.479998

		ZFP36, TBK1, CCND1, JAK2, BID, IKBKE, LYN, TCF7L2, HLA-A, TICAM1, HLA-F, GNG11, NFKB1, NFKBIA, HCK, IL6, TRAF3, FAS, CYCS	
hsa05161: Hepatitis B	7.19x10 ⁻⁶	CDKN1A, DDX3X, CXCL8, SRC, TNF, IFIH1, TBK1, STAT4, JAK2, BID, JAK3, IKBKE, MAP2K3, STAT5A, EGR2, EGR3, TICAM1, NFKB1, NFKBIA, CCNA1, IL6, CCNE2, TRAF3, FAS, CYCS, TAB2, MYD88, TLR2	2.59864

KEGG, Kyoto Encyclopedia of Genes and Genomes.

Table SIV. Top 20 enriched KEGG pathways of the shared upregulated 718 genes in differentiated HL-60 cells after 24-h treatment with 1 and 10 µg lipoteichoic acid.

KEGG term	P-value	Genes	Fold enrichment
hsa04060: Cytokine-cytokine receptor interaction	1.69x10 ⁻¹¹	CX3CR1, CSF1R, CXCL6, IL1RN, CD40, CXCL8, EBI3, CSF2RB, CXCL3, CSF2RA, CXCL2, CXCL5, CXCL16, CCL8, IL18RAP, CCL7, CCL5, CCL4, CCL3, TNFSF10, IL21R, CCL2, TNFRSF8, CCR5, TNFRSF4, CCR2, CCR1, IL32, ACVR1, CCL24, IL4R, IL1R1, IL10RA, TNFRSF18, TNFRSF9, TNFRSF1B, IL17RA, TNFRSF10D, IL1A, IL1B, IL7R, IL18R1	3.292726
hsa04061: Viral protein interaction with cytokine and cytokine receptor	1.61x10 ⁻¹⁰	CCR1, CX3CR1, CCL24, CXCL6, CSF1R, CXCL8, IL10RA, CXCL3, TNFRSF1B, CXCL2, CXCL5, TNFRSF10D, IL18RAP, CCL8, CCL7, CCL5, CCL4, TNFSF10,	5.31932

		CCL3, CCL2, CCR5, IL18R1, CCR2	
hsa05417: Lipid and atherosclerosis	5.67x10 ⁻¹	CD40, CXCL8, NCF1, NCF2, SRC, LY96, CXCL3, CXCL2, ICAM1, CCL5, CASP1, CCL3, TNFSF10, CCL2, OLR1, CD14, IKBKE, LDLR, LYN, JUN, VCAM1, HSPA6, STAT3, CYBB, PRKCA, POU2F2, SOD2, MMP9, NFKBIA, IL1B, IRF7, TLR6, TLR2	3.549799
hsa04668: TNF signaling pathway	1.62x 10 ⁻⁹	CXCL6, JUN, CEBPB, VCAM1, TNFAIP3, TRAF1, NOD2, CXCL3, PTGS2, TNFRSF1B, CXCL2, MMP9, CXCL5, ICAM1, NFKBIA, SOCS3, MMP14, IL1B, CCL5, BCL3, CCL2, IL18R1, BIRC3	4.749393
hsa04062: Chemokine signaling pathway	4.58x10 ⁻⁸	CX3CR1, CXCL6, CXCL8, NCF1, SRC, PXN, ARRB2, CXCL3, CXCL2, CXCL5, CXCL16, CCL8, GNGT2, CCL7, CCL5, CCL4, CCL3,	3.372757

		CCL2, CCR5, JAK3, CCR2, CCR1, LYN, CCL24, STAT3, GNG11, NFKBIA, HCK	
hsa04064: NF-kappa B signaling pathway	7.38x10 ⁻⁸	LYN, CD40, VCAM1, CXCL8, BCL2A1, IL1R1, TNFAIP3, LY96, TRAF1, CXCL3, PTGS2, CXCL2, RELB, ICAM1, NFKB2, NFKBIA, IL1B, CCL4, CD14, BIRC3	4.447592
hsa04621: NOD-like receptor signaling pathway	7.42x10 ⁻⁸	CXCL8, TNFAIP3, NLRC4, NOD2, CXCL3, MEFV, CXCL2, CASP5, IFI16, CCL5, NAMPT, CASP1, CCL2, GBP2, IKBKE, GBP3, GBP5, JUN, CYBB, P2RX7, NFKBIA, OAS1, OAS3, IL1B, IRF7, CARD16, BIRC3	3.393706
hsa04657: IL-17 signaling pathway	4.22x10 ⁻⁷	CXCL6, JUN, CEBPB, CXCL8, TNFAIP3, CXCL3, PTGS2, CXCL2, MMP9, CXCL5, IL17RA, NFKBIA, CCL7, IL1B, CCL2, S100A9, IKBKE, S100A8	4.428666

hsa04380: Osteoclast differentiation	4.83x10 ⁻⁷	LILRA6, CSF1R, JUN, NCF1, IL1R1, NCF2, LILRB1, MITF, LILRB2, LILRB3, LILRA5, RELB, NFKB2, NFKBIA, IL1A, SOCS3, FCGR2A, IL1B, FYN, FCGR1A, FCGR2B	3.794352
hsa05134: Legionellosis	6.24x10 ⁻⁷	ITGAM, CXCL8, ITGB2, HSPA6, NLRC4, CXCL3, CXCL2, NFKB2, C3, NFKBIA, IL1B, CASP1, CD14, TLR2	5.680433
hsa05140: Leishmaniasis	4.2x10 ⁻⁶	JUN, MARCKSL1, ITGAM, NCF1, NCF2, ITGB2, CYBB, PTGS2, C3, NFKBIA, IL1A, FCGR2A, IL1B, FCGR1A, TLR2	4.505353
hsa05144: Malaria	6.73x10 ⁻⁶	CD40, VCAM1, CXCL8, IL1B, SDC2, ITGB2, PECAM1, HBB, CCL2, THBS1, ICAM1, TLR2	5.550595
hsa04620: Toll-like receptor signaling pathway	8.4x10 ⁻⁶	JUN, CD40, CXCL8, LY96, NFKBIA, TLR1, IL1B, CCL5, CCL4, SPP1, CCL3, IRF7, TLR8, CD14, TLR6,	3.780453

		IKBKE, TLR2	
hsa04666: Fc gamma R-mediated phagocytosis	1.51x10 ⁻⁵	LYN, MARCKSL1, GSN, NCF1, SPHK1, LIMK2, PLA2G4C, PRKCA, PLD2, HCK, MARCKS, FCGR2A, PTPRC, FCGR1A, FCGR2B, PLPP1	3.814842
hsa05418: Fluid shear stress and atherosclerosis	2.68x10 ⁻⁵	ACVR1, NQO1, JUN, VCAM1, SDC4, NCF1, IL1R1, NCF2, SRC, SDC2, PDGFA, MMP9, ASS1, ICAM1, IL1A, IL1B, PECAM1, CCL2, HMOX1	3.16131
hsa05133: Pertussis	8.76x10 ⁻⁵	CXCL6, C1QA, JUN, ITGAM, CXCL8, ITGB2, LY96, CXCL5, C3, IL1A, IL1B, CASP1, CD14	3.956016
hsa05152: Tuberculosis	9.02x10 ⁻⁵	CEBPB, ITGAM, FCER1G, SRC, IL10RA, SPHK1, ITGB2, NOD2, C3, TLR1, IL1A, FCGR2A, IRAK2, IL1B, ITGAX, CD14, TLR6, FCGR1A, FCGR2B, CLEC4E, TLR2	2.698206
hsa04625: C-type lectin	1.38x10 ⁻⁴	EGR2, JUN, EGR3,	3.335694

receptor signaling pathway		FCER1G, SRC, PTGS2, RELB, NFKB2, NFKBIA, RRAS, IL1B, BCL3, CASP1, CLEC4E, IKBKE	
hsa05323: Rheumatoid arthritis	1.62x10 ⁻⁴	CXCL6, JUN, CXCL8, ITGB2, CXCL3, CXCL2, CXCL5, ICAM1, IL1A, IL1B, CCL5, CCL3, CCL2, TLR2	3.481556
hsa05150: Staphylococcus aureus infection	2.24x10 ⁻⁴	C1QA, ITGAM, ITGB2, C5AR1, PTAFR, FPR1, FPR2, FCAR, ICAM1, C3, FCGR2A, C3AR1, FCGR1A, FCGR2B	3.372757

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