

Table S1. Primers used in the reverse transcription-quantitative PCR.

Gene	Primer	Sequence (5'→3')	Product size, bp
CFH	F	GCTGTATGCACTGAATCTGGA	136
	R	ACTGGTACGTGATTTTCATCTCC	
CD24	F	CCAAATCCAATAATGCCACC	123
	R	ACGTTTCTTGGCCTGAGTC	
CD44	F	ACACGAAGGAAAGCAGGAC	135
	R	GGTGAATGTGTCTTGGTCTC	
CD133	F	TTATCTGCAGTGGATCGAGTTC	150
	R	GTAGCTTTTCCTATGCCAAACC	
Oct4	F	GAGAATTTGTTCTGCAGTGC	150
	R	TCGTTGTGCATAGTCGCTG	
Sox2	F	AAAACGAGGGAAATGGGAGG	142
	R	GGGATTGGTGTCTCTTTTGC	
c-Myc	F	TTCGGGTAGTGAAAACCAG	108
	R	AGTAGAAATACGGCTGCACC	
Klf4	F	ACCTACACAAAGAGTCCCATC	136
	R	TGTGTTTACGGTAGTGCCTG	
EpCAM	F	CAGACAAGGACACTGAAATAACC	134
	R	TGTGATCTCCTTCTGAAGTGC	
ALDH1A3	F	CTTCTGCCTTAGAGTCTGGAAC	138
	R	TCACTTCTGTGTATTCGGCC	
ABCG2	F	AGGTCTGTTGGTCAATCTCAC	142
	R	TCCTGTTGCATTGAGTCTG	
Nanog	F	GAAATACCTCAGCCTCCAGC	149
	R	GCGTCACACCATTGCTATTC	
GJA1	F	GGATCGGGTTAAGGGAAAGAG	139
	R	AGGAGACATAGGCGAGAGG	
EPAS1	F	CCCATGTCTCCACCTTCAAG	136
	R	AAGGCTTGCTCTTCATACTCC	
CDKN1B	F	GGTGGACCCAAAGACTGATC	146
	R	GGGAACCGTCTGAAACATTTTC	
CXCR4	F	GTCCATTCCTTTGCCTCTTTTG	105
	R	TCTTACGGAACAGGGTTC	
PTPRJ	F	CAAGCAGGCTCAGGACTATG	142
	R	GGAGGTGAAATGGAAGTGTCT	
MYO6	F	ACGTGCTCCAAAGTCTGTTAC	112
	R	GTTCATTTCAATCTCCCGCTG	
EPB41L3	F	TCAACAGACACTGCCGTAAC	147
	R	ATCCATGAGCTTTTCCCCAG	
β-actin	F	CCCAGACAATGAAGATCAAG	136
	R	GACTCGTCATACTCCTGCTTG	

ABCG2, ATP binding cassette subfamily G member 2; ALDH1A3, aldehyde dehydrogenase 1 family member A3; CFH, complement factor H; CXCR4, C-X-C motif chemokine receptor 4; EPAS1, endothelial PAS domain protein 1; EpCAM, epithelial cellular adhesion molecule; EPB41L3, erythrocyte membrane protein band 4.1-like 3; GJA1, gap junction protein α 1; Klf4, Klf transcription factor 4; MYO6, myosin VI; PTPRJ, protein tyrosine phosphatase receptor type J.

Table SII. shRNA used for CFH^a knockdown.

shRNA	Plasmid name or TRC clone ID	Target sequence (5'→3')
shRNA NS	p.LKO.1 TRC control	CCGCAGGTATGCACGCGT
shCFH #1	TRCN0000057133	CGCAAGAAAGACCAGTATAAA
shCFH #5	TRCN0000377700	TTATGCACATGGGACTAAATT

^aGene symbol, *CFH*; reference sequence, NM_00186; species, human; region, coding sequence. CFH, complement factor H; NS, non-silencing; shRNA, short hairpin RNA.

Table III. Antibodies used for western blotting.

Antibody	Host	Dilution	Supplier	Cat. no.
CFH	Mouse	1:1,000	Invitrogen (Thermo Fisher Scientific, Inc.)	MA1-70057
CD24	Rabbit	1:1,000	Santa Cruz Biotechnology, Inc.	sc-11406
CD44	Rabbit	1:1,000	Abcam	ab157107
CD133	Rabbit	1:1,000	Abcam	ab19898
Oct4	Mouse	1:1,000	Santa Cruz Biotechnology, Inc.	sc-5279
Sox2	Rabbit	1:1,000	Invitrogen (Thermo Fisher Scientific, Inc.)	48-1400
c-Myc	Rabbit	1:1,000	Abcam	ab32072
Klf4	Rabbit	1:1,000	Abcam	ab106629
EpCAM	Mouse	1:1,000	Santa Cruz Biotechnology, Inc.	sc-25308
CXCR4	Mouse	1:1,000	Invitrogen (Thermo Fisher Scientific, Inc.)	35-8800
p-JAK1	Rabbit	1:1,000	Cell signaling Technology, Inc.	3331S
JAK1	Rabbit	1:1,000	Cell signaling Technology, Inc.	3344P
p-JAK2	Rabbit	1:1,000	Cell signaling Technology, Inc.	3776S
JAK2	Rabbit	1:1,000	Cell signaling Technology, Inc.	3230S
p-STAT3	Rabbit	1:1,000	Cell signaling Technology, Inc.	9145S
STAT3	Mouse	1:1,000	Cell signaling Technology, Inc.	9139S
EPB41L3	Rabbit	1:1,000	Abcam	ab154071
p-ERK	Rabbit	1:1,000	Cell signaling Technology, Inc.	4370S
ERK	Rabbit	1:1,000	Cell signaling Technology, Inc.	4695T
p-JNK	Mouse	1:1,000	Cell signaling Technology, Inc.	9255S
JNK	Rabbit	1:1,000	Cell signaling Technology, Inc.	9252T
p-p38	Rabbit	1:1,000	Cell signaling Technology, Inc.	9215S
p38	Rabbit	1:1,000	Cell signaling Technology, Inc.	8690T
p-AKT	Rabbit	1:1,000	Cell signaling Technology, Inc.	4060
AKT	Rabbit	1:1,000	Abcam	ab126811
β -actin	Mouse	1:1,000	Santa Cruz Biotechnology, Inc.	sc-47778
Mouse IgG (H+L) secondary antibody conjugated with HRP	Goat	1:5,000	Invitrogen (Thermo Fisher Scientific, Inc.)	G21040
Rabbit IgG (H+L) secondary antibody conjugated with HRP	Goat	1:5,000	Invitrogen (Thermo Fisher Scientific, Inc.)	G21234

CFH, complement factor H; CXCR4, C-X-C motif chemokine receptor 4; EpCAM, epithelial cellular adhesion molecule; EPB41L3, erythrocyte membrane protein band 4.1-like 3; JAK, Janus kinase; Klf4, Klf transcription factor 4.

Table SIV. siRNAs used for EPB41L3 knockdown.

siRNA	Design ID	Duplex sequences (5'→3')	Location/ Exon
Negative control	51-01-14-04	rCrGrUrUrArArUrCrGrCrGrUrArUrArArUrArCrGrCrGrUAT rArUrArCrGrCrGrUrArUrUrArUrArCrGrCrGrArUrUrArArCrGrArC	-
siEPB41L3 #1	hs.Ri.EPB41L3.13.1	rGrCrArUrGrArArGrCrArArCrGrArUrArArArUrUrArCAA rUrUrGrUrArArUrUrUrUrArUrCrGrUrUrGrCrUrCrArUrGrCrArU	3'UTR /20-23
siEPB41L3 #2	hs.Ri.EPB41L3.13.2	rUrGrArUrArCrUrUrCrUrCrGrArUrGrGrArUrCrArGrArATA rUrArUrUrCrUrGrArUrCrCrArUrCrGrArGrArArGrUrArUrCrArCrU	CDS /3, 5
siEPB41L3 #3	hs.Ri.EPB41L3.13.3	rArCrArCrUrUrGrArArCrUrUrGrCrUrArGrArGrArArGAC rGrUrCrUrUrCrUrCrUrArGrCrArArGrUrUrCrArArGrUrGrUrUrC	CDS /4, 6

CDS, coding sequence; EPB41L3, erythrocyte membrane protein band 4.1-like 3; si(RNA), small interfering (RNA); UTR, untranslated region.

Table SV. Biological processes involving upregulated genes following complement factor H downregulation, based on the TOPPFUN database results.

Term	Count	Genes
Anatomical Structure Development	69	SPRY1, EREG, SHB, ID1, LAMA5, ZMIZ1, EYA1, CREB3L1, EDNRA, AREG, B4GALT1, TGFA, RHOB, LIF, TGM2, CSF1, PTPRJ, JAG1, PLAU, TNFRSF1A, PBX1, MIR27B, SDC4, EPAS1, SMAD3, VEGFA, SEMA3C, SHROOM2, ITGB4, STC1, TENM3, FST, MMP16, SCARA3, PLXNA1, LAMA4, CDKN1B, MIR548C, VLDLR, DDIT4, DPYSL2, NTF3, EPB41L3, PRAG1, TNFRSF21, PHGDH, PARD6B, NPTN, SEMA3D, EFNA4, FGF13, SDC2, CDH11, CDK6, F2RL1, CLDN1, RHOF, IFITM1, CRISPLD2, S100A4, SEC24D, TNFSF18, ADD2, FLG, KRT81, KRT80, ZNF430, TIMP4, INHBB
Cellular Component Organization	60	LAMA5, EPB41L3, SHROOM2, F2RL1, ITGB4, CLDN1, PARD6B, PTPRJ, CDH11, SDC4, SMAD3, VEGFA, CRISPLD2, VLDLR, ABCA1, LAMA4, CREB3L1, B4GALT1, LIPG, TNFRSF1A, MMP16, SCARA3, MIR27B, DPYSL2, F2RL3, NTF3, AREG, TGFA, SEC24D, STXBP6, BST2, VPS35L, RAB39A, PLAU, PCDH7, RHOF, METTL7A, RAB27B, SEMA3C, ID1, PRAG1, TNFRSF21, PHGDH, LIF, NPTN, SEMA3D, EFNA4, TENM3, FGF13, SDC2, PLXNA1, ADD2, RHOB, CDKN1B, FLG, SPRY1, EYA1, MYBL2, EREG, DDIT4
Regulation of localization	60	CDKN1B, SEMA3C, EREG, TNFSF18, NTF3, LAMA4, IFITM1, LAMA5, F2RL1, PRAG1, EDNRA, B4GALT1, STC1, RHOB, PARD6B, SEMA3D, CSF1, PTPRJ, BST2, JAG1, PLAU, FGF13, RHOF, MIR27B, CD99L2, SDC4, PLXNA1, SMAD3, CDK6, VEGFA, DDIT4, ID1, SHROOM2, ITGB4, ADD2, PLAT, SDC2, CRISPLD2, DPYSL2, ABCA1, INHBB, NLRP2, TNFRSF21, CREB3L1, LIF, STXBP6, VPS35L, TNFRSF1A, PCDH7, METTL7A, RAB27B, RAB39A, F2RL3, LIPG, VLDLR, AREG, TGFA, SEC24D, SCARA3, CLDN1
Cell differentiation	57	VLDLR, DDIT4, SEMA3C, DPYSL2, NTF3, ID1, EYA1, EPB41L3, PRAG1, TNFRSF21, PHGDH, AREG, PARD6B, LIF, NPTN, SEMA3D, EFNA4, CSF1, TENM3, JAG1, FGF13, PBX1, SDC2, CDH11, SDC4, PLXNA1, CDK6, VEGFA, LAMA5, F2RL1, CLDN1, STC1, TNFRSF1A, CDKN1B, FLG, EREG, KRT81, KRT80, B4GALT1, SMAD3, ABCA1, TNFSF18, SHB, FST, MIR27B, SPRY1, EDNRA, S100A4, IFITM1, CREB3L1, ITGB4, PTPRJ, ZMIZ1, EPAS1, INHBB, LAMA4, CABYR
Response to stimulus	57	SEMA3C, TNFSF18, NTF3, F2RL1, EDNRA, SEMA3D, CSF1, PTPRJ, SMAD3, VEGFA, VLDLR, DPYSL2, NPTN, EFNA4, PLAU, PLXNA1, CDKN1B, SPRY1, DDIT4, EREG, EYA1, CREB3L1, AREG, TGFA, LIF, IGFBP4, BST2, JAG1, PLAT, TNFRSF1A, FST, CDK6, STC1, EPAS1, TGM2, SCARA3, PTGES, IFITM1, LAMA5, TNFRSF21, CLDN1, LAPTM5, TIMP4, MYBL2, INHBB, F2RL3, ITGB4, B4GALT1, SDC4, PDGFRL, ID1, MIR27B, ABCA1, NLRP2, GRPR, SLFN13, RHOB
Regulation of biological process	54	ID1, IFITM1, CREB3L1, AREG, CSF1, JAG1, PBX1, SMAD3, CDK6, VEGFA, CDKN1B, SEMA3C, ABCA1, EREG, TNFSF18, SHB, PRAG1, TNFRSF21, LIF, SEMA3D, FGF13, FST, MIR27B, NTF3, SHROOM2, F2RL1, ADD2, STC1, RHOB, BST2, RHOF, SDC4, VLDLR, INHBB, EDNRA, TGFA, NPTN, IGFBP4, PTPRJ, TNFRSF1A, PLAU, CD99L2, SPRY1, DDIT4, PDK4, ZMIZ1, B4GALT1, MIR548C, TENM3, PLXNA1, TGM2, PLAT, SCARA3, STXBP6
Signal transduction	53	SPRY1, DDIT4, EREG, PDGFRL, INHBB, NTF3, PDK4, SHB, ID1, CREB3L1, AREG, TGFA, LIF, NPTN, EFNA4, CSF1, IGFBP4, PTPRJ, PLAT, FST, SDC2, SMAD3, VEGFA, TNFSF18, F2RL3, ZMIZ1, EYA1, F2RL1, PRAG1, EDNRA, S100A4, TGM2, BST2, JAG1, TNFRSF1A, MIR27B, CDKN1B, TIMP4, PBX1, CDK6, GUCY1B1, ABCA1, RHOB, RAB39A, RHOF, RAB27B, FGF13,

			GRPR, SEMA3C, SEMA3D, PLXNA1, CABYR, PLAU
Biological regulation	50		CDKN1B, SEMA3C, TNFSF18, INHBB, SHB, ID1, LAMA4, F2RL1, PRAG1, TNFRSF21, CREB3L1, AREG, STC1, LIF, NPTN, SEMA3D, BST2, JAG1, PLAT, PLAU, FGF13, TNFRSF1A, PBX1, MIR27B, SMAD3, CDK6, VEGFA, EREG, NTF3, TGFA, PTPRJ, VLDLR, EDNRA, CSF1, IGFBP4, SDC4, SPRY1, DDIT4, PDK4, F2RL3, GRPR, TGM2, IFITM1, RHOB, ABCA1, LIPG, NLRP2, DPYSL2, SHROOM2, ADD2
Cell proliferation	37		CDKN1B, SPRY1, EREG, TNFSF18, NTF3, PTGES, ID1, IFITM1, LAMA5, ZMIZ1, EYA1, TNFRSF21, GRPR, EDNRA, AREG, B4GALT1, TGFA, MIR548C, LIF, TGM2, CSF1, PTPRJ, BST2, JAG1, PLAU, PBX1, MIR27B, SDC4, SMAD3, CDK6, VEGFA, IGFBP4, FST, SHB, F2RL1, STC1, MMP16
Cell migration	34		DDIT4, SEMA3C, TNFSF18, NTF3, ID1, LAMA4, IFITM1, LAMA5, SHROOM2, F2RL1, PRAG1, ITGB4, EDNRA, ADD2, B4GALT1, STC1, RHOB, PARD6B, SEMA3D, CSF1, PTPRJ, BST2, JAG1, PLAT, PLAU, FGF13, RHOF, MIR27B, CD99L2, SDC2, SDC4, PLXNA1, SMAD3, VEGFA
Cell development	33		VLDLR, SEMA3C, DPYSL2, NTF3, SHB, ID1, EYA1, PRAG1, TNFRSF21, LIF, NPTN, SEMA3D, CSF1, TENM3, JAG1, FGF13, TNFRSF1A, PBX1, SDC2, PLXNA1, VEGFA, F2RL1, CLDN1, STC1, B4GALT1, CDK6, PARD6B, EFNA4, CDH11, LAMA5, EDNRA, EREG, INHBB
Immune system process	32		TNFSF18, SHB, ZMIZ1, F2RL1, ADD2, LIF, EFNA4, CSF1, PTPRJ, JAG1, PBX1, FST, EPAS1, SMAD3, CDK6, VEGFA, CRISPLD2, TNFRSF21, B4GALT1, BST2, VPS35L, PLAU, RHOF, METTL7A, SDC4, DDIT4, IFITM1, SLFN13, SCARA3, EREG, EDNRA, CD99L2
Response to stress	31		CDKN1B, VLDLR, DDIT4, EDNRA, STC1, PLAT, PLAU, EPAS1, SMAD3, VEGFA, F2RL1, PTPRJ, EREG, TNFSF18, INHBB, PTGES, IFITM1, NLRP2, CLDN1, B4GALT1, TGM2, CSF1, IGFBP4, SLFN13, BST2, TNFRSF1A, ANKFN1, SCARA3, KLRC3, F2RL3, SDC4
Biological adhesion	30		TNFSF18, INHBB, SHB, ID1, LAMA4, LAMA5, ZMIZ1, TNFRSF21, ITGB4, CLDN1, ADD2, B4GALT1, RHOB, NPTN, TGM2, CSF1, TENM3, PTPRJ, STXBP6, JAG1, PLAU, PCDH7, MIR27B, CD99L2, CDH11, SDC4, PLXNA1, SMAD3, CDK6, VEGFA
Tissue development	30		CDKN1B, FLG, SPRY1, SEMA3C, EREG, KRT81, ID1, LAMA5, EYA1, F2RL1, PHGDH, CLDN1, EDNRA, AREG, KRT80, B4GALT1, STC1, RHOB, LIF, TGM2, CSF1, JAG1, TNFRSF1A, PBX1, FST, SDC4, PLXNA1, SMAD3, CDK6, VEGFA
Tube development	30		CRISPLD2, SPRY1, SEMA3C, EREG, SHB, ID1, LAMA5, ZMIZ1, EYA1, ITGB4, CREB3L1, PHGDH, EDNRA, AREG, B4GALT1, TGFA, RHOB, LIF, TGM2, CSF1, PTPRJ, JAG1, PLAU, TNFRSF1A, PBX1, MIR27B, SDC4, EPAS1, SMAD3, VEGFA
Cell adhesion	29		TNFSF18, SHB, ID1, LAMA4, LAMA5, ZMIZ1, TNFRSF21, ITGB4, CLDN1, ADD2, B4GALT1, RHOB, NPTN, TGM2, CSF1, TENM3, PTPRJ, STXBP6, JAG1, PLAU, PCDH7, MIR27B, CD99L2, CDH11, SDC4, PLXNA1, SMAD3, CDK6, VEGFA
Regulation of metabolic process	28		CDKN1B, VLDLR, EREG, TNFSF18, INHBB, NTF3, F2RL1, NLRP2, EDNRA, AREG, TGFA, LIF, NPTN, CSF1, IGFBP4, PTPRJ, FGF13, TNFRSF1A, MIR27B, SDC4, SMAD3, VEGFA, SPRY1, DDIT4, SHB, TIMP4, BST2, PLAT
Regulation of cell death	22		B4GALT1, TNFRSF1A, DDIT4, NTF3, TNFRSF21, CSF1, PLAU, MYBL2, VEGFA, CDKN1B, TNFSF18, INHBB, PDK4, ID1, EYA1, NLRP2, CREB3L1, EDNRA, TGFA, RHOB, TGM2, SMAD3

Growth	21	CDKN1B, SPRY1, SEMA3C, DPYSL2, EREG, ZMIZ1, EPB41L3, AREG, STC1, MIR548C, SEMA3D, CSF1, IGFBP4, PTPRJ, BST2, PLAU, FGF13, SCARA3, PLXNA1, SMAD3, VEGFA
Homeostatic process	21	ABCA1, LIPG, FLG, PDK4, ZG16B, ID1, LAMA4, CLDN1, CSF1, EPAS1, VEGFA, F2RL3, F2RL1, EDNRA, STC1, NPTN, TGM2, RAB39A, MIR27B, SMAD3, LIP
Protein modification process	20	CDKN1B, VLDLR, EREG, TNFSF18, INHBB, NTF3, F2RL1, EDNRA, AREG, TGFA, LIF, NPTN, CSF1, IGFBP4, PTPRJ, FGF13, TNFRSF1A, MIR27B, SDC4, VEGFA
Reproduction	20	INHBB, PLAT, PLAU, EREG, CDKN1B, SHB, B4GALT1, LIF, ZMIZ1, ITGB4, EDNRA, AREG, STC1, CABYR, CSF1, TIMP4, PBX1, FST, EPAS1, VEGFA
Cell activation	18	CRISPLD2, TNFSF18, F2RL3, SHB, ZMIZ1, F2RL1, TNFRSF21, B4GALT1, CSF1, PTPRJ, BST2, VPS35L, PLAU, RHOF, METTL7A, SDC4, SMAD3, CDK6
Gene expression	18	TNFSF18, ID1, F2RL1, NLRP2, S100A4, TGM2, BST2, TNFRSF1A, PBX1, MIR27B, SMAD3, VEGFA, ABCA1, EREG, INHBB, TNFRSF21, NPTN, PTPRJ
Developmental growth	17	CDKN1B, SPRY1, SEMA3C, DPYSL2, EREG, ZMIZ1, AREG, STC1, MIR548C, SEMA3D, CSF1, PLAU, FGF13, SCARA3, PLXNA1, SMAD3, VEGFA
Cellular process	16	NTF3, ID1, EPB41L3, SHROOM2, F2RL1, ADD2, STC1, RHOB, BST2, FGF13, RHOF, SDC4, SMAD3, SPRY1, EYA1, PARD6B
Embryo development	16	SEMA3C, ZMIZ1, EYA1, PHGDH, EDNRA, LIF, SEC24D, PBX1, MMP16, SDC4, EPAS1, SMAD3, VEGFA, LAMA4, LAMA5, ITGB4
Protein metabolic process	16	EREG, TNFSF18, PDGFRL, NTF3, EDNRA, AREG, TGFA, LIF, EFNA4, PTPRJ, TNFRSF1A, VEGFA, DDIT4, ZMIZ1, EYA1, TGM2
Hemopoiesis	15	TNFSF18, SHB, ZMIZ1, F2RL1, ADD2, LIF, EFNA4, CSF1, PTPRJ, JAG1, PBX1, FST, EPAS1, CDK6, VEGFA
Developmental process	14	CDKN1B, EREG, INHBB, SHB, AREG, B4GALT1, STC1, LIF, CABYR, CSF1, PBX1, FST, EPAS1, VEGFA
Multicellular organismal process	13	ID1, IFITM1, CREB3L1, AREG, STC1, CSF1, JAG1, PBX1, MMP16, CDH11, SMAD3, CDK6, VEGFA
Cell growth	12	CDKN1B, SEMA3C, DPYSL2, EPB41L3, SEMA3D, IGFBP4, PTPRJ, BST2, FGF13, PLXNA1, SMAD3, VEGFA
Tissue remodeling	9	SEMA3C, LIF, TGM2, JAG1, EPAS1, VEGFA, PDK4, B4GALT1, EFNA4
Granulocyte migration	6	TNFSF18, EDNRA, CSF1, PTPRJ, CD99L2, VEGFA
System process	1	STC1

Table SVI. Biological processes involving downregulated genes following complement factor H downregulation, based on the DAVID database results.

Term	Count	Genes
Anatomical structure development	3	LOX, MYH10, ADAMTS6
Cell death	3	DAPK1, NLRP3, PMAIP1
Cell proliferation	2	GJA1, NOG
Gene expression	5	RIMS1, GJA1, HMGN5, NOG, PTPN22
Response to stimuli	3	EGR1, GJA1, CTSV

Table SVII. Diseases involving upregulated genes following complement factor H downregulation, based on the TOPPFUN database results.

Disease name	Count	Genes
Triple-negative breast carcinoma	27	CDKN1B,AFAP1-AS1,SPRY1,ABCA1,EREG,NTF3,LAMA4,F2RL1,ITGB4,GRPR,CREB3L1,PHGDH,CLDN1,EDNRA,TGFA,S100A4,EFNA4,LIPG,JAG1,TNFRSF1A,MIR27B,CDH11,PLXNA1,EPAS1,SMAD3,CDK6,VEGFA
Triple negative breast neoplasms	27	CDKN1B,AFAP1-AS1,SPRY1,ABCA1,EREG,NTF3,LAMA4,F2RL1,ITGB4,GRPR,CREB3L1,PHGDH,CLDN1,EDNRA,TGFA,S100A4,EFNA4,LIPG,JAG1,TNFRSF1A,MIR27B,CDH11,PLXNA1,EPAS1,SMAD3,CDK6,VEGFA
Tumor angiogenesis	22	VLDLR,ID1,LAMA4,LAMA5,EYA1,EDNRA,AREG,STC1,TGFA,S100A4,SEMA3D,CSF1,JAG1,PLAT,PLAU,FGF13,FST,PLXNA1,EPAS1,SMAD3,CDK6,VEGFA
Carcinoma breast stage IV	18	ACTBL2,ID1,F2RL1,GRPR,CREB3L1,S100A4,RHOB,BST2,PLAT,PLAU,TNFRSF1A,FST,PCDH7,CDH11,EPAS1,SMAD3,CDK6,VEGFA
Malignant neoplasm of breast	14	CDKN1B,EREG,RIBC2,ZMIZ1,EPB41L3,SHROOM2,PHGDH,CLDN1,EDNRA,AREG,TGM2,CSF1,JAG1,FST
Estrogen receptor-negative breast cancer	10	INHBB,FAM102A,AREG,JAG1,PLAT,PBX1,SDC2,RAB27B,EPAS1,VEGFA
Invasive carcinoma of breast	10	CDKN1B,CLDN1,AREG,TGFA,S100A4,BST2,PLAU,FST,CDK6,VEGFA
Mammary carcinoma, human	10	CDKN1B,RIBC2,EPB41L3,PHGDH,CLDN1,AREG,TGM2,CSF1,JAG1,FST
Mammary neoplasms, human	10	CDKN1B,RIBC2,EPB41L3,PHGDH,CLDN1,AREG,TGM2,CSF1,JAG1,FST
Breast carcinoma	10	CDKN1B,RIBC2,EPB41L3,PHGDH,CLDN1,AREG,TGM2,CSF1,JAG1,FST
Mammary tumorigenesis	8	CDKN1B,EREG,PTGES,AREG,TGFA,S100A4,CSF1,VEGFA
Invasive cancer	7	PTGES,NLRP2,CSF1,TIMP4,FGF13,MYBL2,VEGFA
Vascular inflammations	7	DDIT4,ABCA1,F2RL3,F2RL1,EDNRA,TNFRSF1A,VEGFA
Angiogenic switch	6	F2RL1,EDNRA,IGFBP4,FGF13,EPAS1,VEGFA
Advanced breast cancer	6	CYP2B6,JAG1,PLAT,SMAD3,CDK6,VEGFA
Inflammatory breast carcinoma	6	KRT81,IFITM1,AREG,TGFA,CSF1,VEGFA
Breast diseases	5	SEMA3C,PTGES,TGFA,FST,VEGFA
Early-stage breast carcinoma	5	CDKN1B,EREG,S100A4,JAG1,VEGFA
Inflammation	4	PTGES,F2RL1,TGFA,VEGFA
Metastatic human epidermal growth factor 2 positive carcinoma of breast	3	CDKN1B,AREG,VEGFA
Node-negative breast cancer	3	CDKN1B,JAG1,VEGFA
Mammary neoplasms, human	1	CSF1
Metastatic ductal breast carcinoma	1	VEGFA

Table SVIII. Diseases involving downregulated genes following complement factor H downregulation, based on the DAVID database results.

Disease name	Count	Genes
Cardiovascular	40	SLC44A5, MOXD1, NNMT, PDE1C, CCDC68, FRMPD4, SATB1, CXCR4, PTPN22, FGF5, RGS4, RIMS1, GJA1, EPB41L4A, SRPX2, ADAMTS1, COBLL1, BTBD3, MAEL, NLRP3, TBC1D22B, ADAMTS6, CYP2J2, CCBE1, EDN1, CXADR, NEGR1, ATP8B1, MGC12916, SNCAIP, CORO2B, GPR137C, GULP1, FIG4, UBLCP1, LOX, ZNF716, VEPH1, KCNQ3, RBMS3
Chemdependency	36	SLC44A5, PDE1C, SATB1, PLD5, PTPN22, FGF5, RGS4, RIMS1, EPB41L4A, UBL3, COBLL1, MYO6, MAEL, AOX1, GABRE, SAMD12, MYH10, TBC1D22B, ADAMTS6, CYP2J2, CCBE1, DTNA, CXADR, NEGR1, DAPK1, ZNF804A, SNCAIP, CORO2B, CPPED1, FAM210B, LOX, HKDC1, VEPH1, ZNF438, KCNQ3, RBMS3
Immune	32	HERPUD2, NNMT, PDE1C, SATB1, PLD5, CXCR4, PTPN22, CTSV, FAM117B, RGS4, RIMS1, UBL3, DMBT1, TTPA, POLI, NLRP3, PMAIP1, AOX1, LOC728755, LINC01446, CYP2J2, EGR1, CCBE1, ARG2, EDN1, NEGR1, ATP8B1, PDCD1LG2, FIG4, UBLCP1, LOX, RAB38
Neurological	29	SLC44A5, KHDRBS3, NNMT, FRMPD4, CRYZ, RGS4, RIMS1, GJA1, DMBT1, TTPA, COBLL1, BTBD3, SH3BGRL2, GABRE, MYH10, EDN1, NEGR1, DAPK1, PDCD1LG2, SNCAIP, CORO2B, GCFC2, LOX, HKDC1, ABI1, C18ORF54, ZNF438, KCNQ3, RBMS3