

Table S1. List of primers, shRNA sequences, plasmids, chemicals, reagents, and antibodies.

Purposes	Gene name	Forward (F) or Reverse (R)	Sequence (5' to 3')
RT-qPCR	ACTB	F	GATTCTCTATGTGGGCGACGA
		R	AGGTCTCAAACATGATCTGGGT
	B2M	F	TGCCGTGTGAACCATGTG
		R	ACCTCCATGATGCTGCTTACA
	NES	F	CTGGAGCAGGAGAAACAGGG
		R	GAGGGAAGTC TTGGAGCCAC
	SOX2	F	AACGGCAGCTACAGCATGAT
		R	GACTTGACCACCGAACCCAT
	PDGFRA	F	GACGGTCTTGAAGTGAGCA
		R	TAAAGCCCTGTCTGCTGTCTG
	CSPG4	F	GGGCCGTTCTCTATAGCCAC
		R	GACACCATCACCAGGTAGCC
	OLIG2	F	AGTGGCTTCAAGTCATCCTCG
		R	TGTTGATCTTGAGACGCAGCT
	DLL3	F	TAGCGCTCATTTTCTCCTCCC
		R	TGGATCTGCAGCTCGAAGAC
	PTPRZ1	F	GCAGTTGGATGGAGAGGACC
		R	TCGACAATCAGTTGGTCGCT
	CSPG5	F	GAGCTTCTAGTGCCCACTGG
		R	CATCCCCCTTGTCAGATGT
	NOTCH1	F	CAGATCCTGATCCGGAACCG
		R	CCAGAAACAGGGGTGTCTCC
	NCAN	F	GTGTCACTGCCTTCTTACCC
		R	TGCAATGATGGCTGAGCTGA
	MOG	F	AGGGAAAGGTGACTCTCAGGA
		R	GGAAGATGAGGCCAACAGTGA
	ERBB3	F	TGAATGGCCTGAGTGTGACC
		R	ATCGTAGACCTGGGTCCCTC
EBP	F	TACTGGCTGGCCTCTTCTCT	
	R	CCCAGGATGTATCGGCTGTC	
Actb	F	GGTGGGAATGGGTGAGAAGG	
	R	GTACATGGCTGGGGTGTGTA	
B2m	F	TTTCAGTGGCTGCTACTCGG	
	R	TGTTCCGGCTTCCCATTCTCC	
Ebp	F	ATCGAGGGCTGGTTCTCTCT	
	R	GCCCATAGACACCACAAGCT	
Purposes	Name	Forward (F) or Reverse (R)	Sequence (5' to 3')
sgRNA	sg-HRH1 -exon2-F1	F	CACCGTACATCGTCAGCCTCTCGG
	sg-HRH1 -exon2-R1	R	AAACCCGAGAGGCTGACGATGTAC
	sg-HRH1 -exon2-F2	F	CACCGCAGACCTCGGTGCGCCGAG
	sg-HRH1 -exon2-R2	R	AAACCTCGGCGCACCGAGGTCTGC
	sg-CHRM3 -exon5-F1	F	CACCGGGTCATCGGTGGTACCGTC
	sg-CHRM3 -exon5-R1	R	AAACGACGGTACCACCGATGACCC
	sg-CHRM3 -exon5-F2	F	CACCGAAATGAGTGACGGTTCCCG
	sg-CHRM3 -exon5-R2	R	AAACCGGGAACCGTCACTCATTTT
	sgRNA-control-F	F	CACCGTAGGCGCGCCGCTCTCTAC
	sgRNA-control-R	R	AAACGTAGAGAGCGGCGCGCCTAC
PCR	PCR-HRH1 -F1	F	GGTCACAGTAGGGCTCAACC
	PCR-HRH1-R1	R	CACCACCAGCATCTTTTGGC
	PCR-M13F-CHRM3 -F1	F	TGTAAACGACGGCCAGTCCCCAGACTATGTCAGAGAG
	PCR-M13F-CHRM3 -R1	R	CAGGAAACAGCTATGACCCCTAAGGCCCATCGATTTCATGA
	pLentiCRISPR-R1	N/A	CCCGTTGCGAAAAAGAACGT
EBP mutagenesis	E80K	F	CATTACCTGGTGATCAAGGGCTGGTTCGTTCT
		R	AGAACGAACCAAGCCCTTGATCACCAGGTGAATG
	R147H	F	GCCAGCATCCCCCTCCACTTTCATTCTACAGCT
		R	AGCTGTAGAATGAAGTGAGGGGATGCTGGC
	W196S	F	GTCTTCATGAATGCCCTGTGCTGGTGCTG
R	CAGCACCAGCGACAGGGCATTTCATGAAGAC		
QuikChange Primer Design Program: https://www.agilent.com/store/primerDesignProgram.jsp?_requestid=1072141			
Purposes	Gene name	Clone ID	Sequence (5' to 3')
shRNA	EBP #1 (human)	TRCN0000049393	CCGG-GCACCTAAGACTGGACAACCTT-CTCGAG-AAGTTGTCCAGTCTTAGGTGC-TTTTTG
	EBP #2 (human)	TRCN0000049394	CCGG-CTCCGCTTCATTCTACAGCTT-CTCGAG-AAGCTGTAGAATGAAGCGGAG-TTTTTG
	Ebp #1 (mouse)	TRCN0000111870	CCGG-CCAGAAGACTCAAATCTTCTT-CTCGAG-AAGAAGATTGAGTCTTCTGG-TTTTTG
	Ebp #2 (mouse)	TRCN0000111872	CCGG-CCAAGGGAGATAGCCGATATA-CTCGAG-TATATCGGCTATCTCCCTTGG-TTTTTG
	Non-targeting control	SHC002	CCGG-CAACAAGATGAAGAGCACCAA-CTCGAG-TTGGTGTCTTTCATCTTGTG-TTTTTG