

Table S1: List of all oligonucleotides used in this study. All oligos are displayed in 5' to 3' orientation. Capital letters in the guide sequences highlight (a) BbsI adaptors (CACC) and (b) changes to G residues made to enable efficient pol III transcription.

TARGET	Type of Oligonucleotide	SEQUENCE
Hba R3	5' sgRNA with BbsI adaptor	CACC gggaaagtgaagtgttcag
	3' sgRNA with BbsI adaptor	CACC ggactggcagaaagctatgt
	Screen_FW	tgtgaaatcaccagaattacagg
	Screen_RV	tgtgggtcaggcctcttagaggg
Hba R4	Screen_FW*	ccttctagaactagtcttatcac
	5' sgRNA with BbsI adaptor	CACC Ggtggacaccttgggagttg
	3' sgRNA with BbsI adaptor	CACC GGctagctgaataatttcggg
	Screen_FW	tttccagcaaccttcacaggag
Hba Rm	Screen_RV	attttaaggcattgcagagccg
	Screen_FW*	tgaacagacagacctgatctgag
	5' sgRNA with BbsI adaptor	CACC Ggaccagcgtagtctaactcc
	3' sgRNA with BbsI adaptor	CACC Ggactcaaccacatgactca
WFDC2/HE4	Screen_FW	tagggaaaggttatgtgaactgc
	Screen_RV	tcaggctgggcactggctctgcc
	Screen_FW*	tgaattctctgaaaggtgaatcc
	5' sgRNA with BbsI adaptor	CACC Ggtatcactcttggccccggt
Car9	3' sgRNA with BbsI adaptor	CACC Ggctcggcccccttaggcgcc
	Screen_FW	tttaaccgcatgctctactgcc
	Screen_RV	gtcggggccctcagatctcagcc
	Screen_FW*	aatccccgcactgagatcggc
SLC38A2	5' sgRNA with BbsI adaptor	CACC GGcgttaggataagtgagggg
	3' sgRNA with BbsI adaptor	CACC GGccctgctgaggtggggact
	Screen_FW	cacagtcattggagctatggagg
	Screen_RV	acgtgaatgtcaaatagggtacc
PEX5	Screen_FW*	cacgcagtacagctgactctgcc
	5' sgRNA with BbsI adaptor	CCAC Ggctaaagctgtaccaagt
	3' sgRNA with BbsI adaptor	CCAC Ggagcctctcaccagttagt
	Screen_FW	cctggaataagtctgttttggg
PEX14	Screen_RV	tgctgggaagactttagcac
	Screen_FW*	ttagattgtggtatctgaacggg
	5' sgRNA with BbsI adaptor	CACC ggggtcgcagcaaaagcact
	3' sgRNA with BbsI adaptor	CACC Ggttataaacgctcagtaag
SMPD1	Screen_FW	ggtccaggcccttctgtggaggc
	Screen_RV	aacaagcaggcattctcattcgg
	Screen_FW*	aagcccaggtgcagcctctgaggc
	5' sgRNA with BbsI adaptor	CACC Ggatcagctcgaatggagatc
CLUSTERIN	3' sgRNA with BbsI adaptor	CACC GGacccccagtggggcatgc
	Screen_FW	acgttttagacaggtggaggcagg
	Screen_RV	ttgtcagggtccactttatccc
	Screen_FW*	gccagagcccacttgcaaccagg
CLUSTERIN	5' sgRNA with BbsI adaptor	CACC GGtgagttacagggaatatc
	3' sgRNA with BbsI adaptor	CACC Ggagccaaatgaagagcacta
	Screen_FW	tattcaccgccatcaacctcggg
	Screen_RV	ccagcattttgggagccgaggc
CLUSTERIN	Screen_FW*	ggccctgaccaccgtcacagcac
	5' sgRNA with BbsI adaptor	CACC GGctgccttcgctttcattcg
	3' sgRNA with BbsI adaptor	CACC GGacactggggcctgatagag
	Screen_FW	gataccactctggacaaggaggc
CLUSTERIN	Screen_RV	cacaggagggataagctctgggc
	Screen_FW*	gtctctgttctctgcagaggcg