

Supplementary Table 2: Primers for PCR amplification and sequencing for off-target analysis. Forward (For) and reverse (Rev) primer sequences are listed for each potential off-target site. The off-target code corresponds to the panels in **Supplementary Fig. 1**.

Off-target code	Primer Name	Primer Sequence (5' - 3')	Product size	Chromosome 18 locus
A	A For	AACCCATCTCTCATCTTGAACC	616 bp	<i>Grin2d</i> , intron 2
	A Rev	ATGGAGCTGAGGCTAGAAGAC		
B	B For	CACAGACTAACGTCCTTAGCAC	945 bp	<i>Gas2</i> , intron 7
	B Rev	CGTATCACCAAGGGAGCTATG		
C	C For	CCTCACCAACTTTCCTCTACAC	442 b	<i>Gm35842</i> , lncRNA
	C Rev	CAAACCTCTCAGGTGGCTGTAAC		
D	D For	CCATTAAAGCAAGCGTCCTG	467 bp	<i>Tm6sf1</i> , 5' UTR
	D Rev	GAAGCTACCCAGTCCCAAAG		
H	H For	AGTGTCCACCTATCCTTTATCG	1044 bp	<i>4933440M02Rik</i> , lncRNA
	H Rev	TTTCTGGCTCTCAGCACTAC		
I	I For	AGTCCGTACACAAACCCAAG	829 bp	<i>Fgfr2-217</i> - intron 2 (2.9Mb)
	I Rev	GCAGCATGGTGGATGAATTTG		