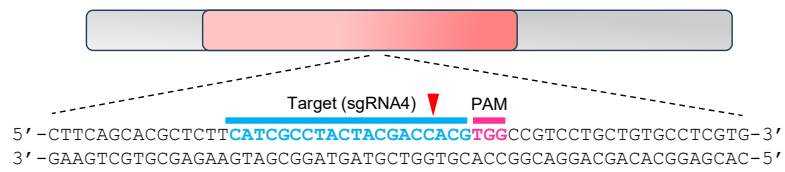


CRISPR-RNA	Target sequence	PAM	Score efficiency	Off-targets
sgRNA1	TCGACACCTCTGGACCGTCC	TGG	92.0	45
sgRNA2	CCAGGACATTTTCGACACCTC	TGG	90.7	68
sgRNA3	GAGCTTGGTGGAGAACGCGC	TGG	90.5	79
sgRNA4 (*)	CATCGCCTACTACGACCACG	TGG	98.1	14

Supplementary Table S1. Target and protospacer adjacent motif (PAM) sequences, score efficiency and number of off-targets for each sgRNA. (*) For sgRNA4, primers sequences are:
hMC1R_CRISPR_top: 5'-CACCGCATCGCCTACTACGACCACG-3' and
hMC1R_CRISPR_bottom: 5'-AAACCGTGGTCGTAGTAGGCGATGC-3'.



Supplementary Figure 1. Schematic representation of the coding exon (red rectangle: CDS; grey rectangle: full exon) of MC1R gene highlighting the sequence targeted by sgRNA4. This 20 nt sequence pairs with the DNA target (blue bar on top strand), directly upstream of a 5'-NGG adjacent motif (PAM; in pink). Cas9 mediates the DSB ~3 bp upstream of the PAM (red triangle).