

Supplementary Figure 1.

ORMDL1 gRNA locus

Ormdl1 gRNA sequence: ACCCGTGTTCATGAACAGCCG
 Reference sequence: 5' GAAGTGAATCCAAAT ACCCGTGTTCATGAACAGCCG GGG 3'
 E V N P N T R V M N S R
 gRNA CTL sequence: GAAGTGAATCCAAAT ACCCGTGTTCATGAACAGCCG GGG
 E V N P N T R V M N S R
 TKO sequence: [GAAGTGAATCCAAAT ACCCGTGTTCATGAACAG AGCGTG
 E V N P N T R V M N R A
 GAAGTGAATCCAAAT ACCCGTGTTCATGAACAGCC CGTG
 E V N P N T R V M N S P
 GAAGTGAATCCAAAT ACCCGTGTTCATGAAC GGATAGG
 E V N P N T R V M N G I

■ Bases matching gRNA sequence

■ Bases/Amino acids mismatching gRNA sequence

ORMDL2 gRNA locus

Ormdl2 gRNA sequence: ACCCGAGTGTGAATAGCCG
 Reference sequence: 5' GAAGTAAACCCCAAC ACCCGAGTGTGAATAGCCG AGG
 E V N P N T R V M N S R
 gRNA CTL sequence: GAAGTAAACCCCAAC ACCCGAGTGTGAATAGCCG AGG
 E V N P N T R V M N S R
 TKO sequence: [GAAGTAAACCCCAAC ACCCGAGTGTGAATAG TCATCC
 E V N P N T R V M N S H
 GAAGTAAACCCCAAC ACCCGAGTGTGAATAG TCAAAC
 E V N P N T R V M N S Q
 GAAGTAAACCCCAAC ACCCGAGTGTGA GGCAGATGCT
 E V N P N T R V M R Q M

ORMDL3 gRNA locus

Ormdl3 gRNA sequence: CGAGGTGAACCCCAACACGC
 Reference sequence: 5' GGCACAGCGCACAG CGAGGTGAACCCCAACACGC GGG 3'
 G T A H S E V N P N T R
 gRNA CTL sequence: GGCACAGCGCACAG CGAGGTGAACCCCAACACGC GGG
 G T A H S E V N P N T R
 Ormdl3 KO sequence: [GGCACAGCGCACAG CGAGGTGAACCCCAACAC C CGG
 G T A H S E V N P N T P
 GGCACAGCGCACAG CGAGGTGAACCCCAACAC C CGG
 G T A H S E V N P N T P
 GGCACAGCGCACAG CGAGGTGAACCCCAACACG ACGC
 G T A H S E V N P N T T
 TKO sequence: [GGCACAGCGCACAG CGAGGTGAACCCCAACA ATGAAC
 G T A H S E V N P N N E
 GGCACAGCGCACAG CGAGGTGAACCCGAACA ATGACC
 G T A H S E V N P N N D
 GGCACAGCGCACAG CGAGGTG CTCGATGATAACCGG
 G T A H S E V L A D N A

Supplementary Figure 2.

