

MGAT1 with GNT1 Knockout 293F Cell Lysate, Homozygous

Catalog No.: RM02769

Basic Information

Catalog No.

RM02769

Category

Cell Lysate

Parental Cell line

293F

Genotype

Knockout

Gene Information

Gene Symbol

MGAT1,GNT1

Species

Human

Gene ID

4245

Swiss Prot

P26572

Synonyms

GnTI; MGAT; GLCT1; GLYT1; GNT-1; GNT-I; GLCNAC-TI; MGAT1

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Background

There are believed to be over 100 different glycosyltransferases involved in the synthesis of protein-bound and lipid-bound oligosaccharides. UDP-N-acetylglucosamine:alpha-3-D-mannoside beta-1,2-N-acetylglucosaminyltransferase I is a medial-Golgi enzyme essential for the synthesis of hybrid and complex N-glycans. The protein, encoded by a single exon, shows typical features of a type II transmembrane protein. The protein is believed to be essential for normal embryogenesis. Several variants encoding the same protein have been found for this gene.

Product Information

Description

MGAT1,GNT1 Knockout cell line is engineered from 293F cell line with Gene-Editing Technology.

Allele-1:exon3 was deleted □ Allele-2:85bp deletion in exon3(GNT1)

Allele-1:53bp deletion in exon1,Allele-2:52bp deletion in exon1(MGAT1)

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles.

Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins.

Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging

1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50μL, 2μg/μL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol).

Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT TTTGCCCTCCAG*****GTCAAACAGGGTC
Mut TTTGCCCTCCAG***Deletion***GTCAAACAGGGTC
Allele-1: exon3 was deleted(GNT1)
WT GCCCTCCAGGTC*****AAACCAGGTCAA
Mut GCCCTCCAGGTC***Deletion***AAACCAGGTCAA
Allele-2: 85bp deletion in exon3(GNT1)

WT CAGTCAGCGCTCT*****CGAGGTGGAGCTGG
Mut CAGTCAGCGCTCT***Deletion***CGAGGTGGAGCTGG
Allele-1: 53bp deletion in exon1(MGAT1)
WT TCAGTCAGCGCTCT*****GCCGAGGTGGAGCT
Mut TCAGTCAGCGCTCT***Deletion***GCCGAGGTGGAGCT
Allele-2: 52bp deletion in exon1(MGAT1)

Genome sequence analysis of PCR products from parental (WT) and MGAT1 with GNT1 knockout (KO) 293F cells, using sanger sequencing.