

MTNR1A Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM02793

Basic Information

Catalog No.

RM02793

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

MTNR1A

Species

Human

Gene ID

4543

Swiss Prot

P48039

Synonyms

MT1; MEL-1A-R; MTNR1A

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Background

This gene encodes one of two high affinity forms of a receptor for melatonin, the primary hormone secreted by the pineal gland. This receptor is a G-protein coupled, 7-transmembrane receptor that is responsible for melatonin effects on mammalian circadian rhythm and reproductive alterations affected by day length. The receptor is an integral membrane protein that is readily detectable and localized to two specific regions of the brain. The hypothalamic suprachiasmatic nucleus appears to be involved in circadian rhythm while the hypophyseal pars tuberalis may be responsible for the reproductive effects of melatonin.

Product Information

Description

MTNR1A Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:85bp deletion in exon2

Allele-2:85bp deletion in exon2

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 TTATCCGTACCCGT*****CATCGGCTCCATAT
Mut TTATCCGTACCCGT***Deletion***CATCGGCTCCATAT
Allele-1: 85bp deletion in exon2

WT TTATCCGTACCCGT*****CATCGGCTCCATAT
Mut TTATCCGTACCCGT***Deletion***CATCGGCTCCATAT
Allele-2: 85bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and MTNR1A knockout (KO) 293T cells, using sanger sequencing.