

MICU1 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM50159

Basic Information

Catalog No.

RM50159

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

MICU1

Species

Human

Gene ID

10367

Swiss Prot

Q9BPX6

Synonyms

CALC; EFHA3; MPXPS; CBARA1; ara
CALC; MICU1

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Background

This gene encodes an essential regulator of mitochondrial Ca²⁺ uptake under basal conditions. The encoded protein interacts with the mitochondrial calcium uniporter, a mitochondrial inner membrane Ca²⁺ channel, and is essential in preventing mitochondrial Ca²⁺ overload, which can cause excessive production of reactive oxygen species and cell stress. Alternatively spliced transcript variants encoding different isoforms have been described.

Product Information

Description

MICU1 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:133bp deletion in exon3

Allele-2:133bp deletion in exon3

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 CATTGCTCCCAA*****ATTTCAGCGTAAAC
Mut CATTGCTCCCAA***Deletion***ATTTCAGCGTAAAC
Allele-1: 133bp deletion in exon3

Genome sequence analysis of PCR products from parental (WT) and MICU1 knockout (KO) 293T cells, using sanger sequencing.

WT CATTGCTCCCAA*****ATTTCAGCGTAAAC
Mut CATTGCTCCCAA***Deletion***ATTTCAGCGTAAAC
Allele-2: 133bp deletion in exon3