# 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

### Contact

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

WT CATTCGCTCCCAAA\*\*\*\*\*\*\*\*\*\*\*ATTTCAGCGTAAAC Mut CATTCGCTCCCAAA\*\*\*Deletion\*\*\*ATTTCAGCGTAAAC Allele-2: 133bp deletion in exon3 Genome sequence analysis of PCR products from parental (WT) and MICU1 knockout (KO) 293T cells, using sanger sequencing.