

Datasheet for ABIN7564737  
**MICU1 Protein (AA 1-477) (His tag)**



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## Overview

Quantity:	1 mg
Target:	MICU1
Protein Characteristics:	AA 1-477
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MICU1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat Micu1 Protein expressed in mammalian cells.
Sequence:	<p>MFRLNTLSAL AELAVGSRWY HGASQPTQTK RRLMLVAFLG ASAVTASTGL LWKKAHAESP  PCVNSKKPDT EDKERNKDSG EVSSREGRAA DAAAEYPED KKKKRSRGRD RKVMEYENRI  RAYSTPDKIF RYFATLKVIN EPGETEVFMT PQDFVRSITP NEKQPEHLGL DQYIIKRFDG  KKIAQEREKF ADEGSIFYSL GECGLISFSD YIFLTTVLST PQRNFEIAFK MFDLNGDGEV  DMEEFEQVQS IIRSQTSMGM RHRDRPTTGN TLKSGLCAL TTYFFGADLK GKLTIKNFLE  FQRKLQHDVL KLEFERHDPV DGRISERQFG GMLLAYSGVQ SKKLTAMQRQ LKKHFKDGKG  LTFQEVENFF TFLKNINDVD TALSFYHMAG ASLDKVTMQQ VARTVAKVEL SDHVCDVVFA  LFDGNGEL SNKEFVSIMK QRLMRGLEKP KDMGFTRLMQ AMWKCAQETA WDFALPK</p> <p><b>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>

## Product Details

### Characteristics:

### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

### Grade:

custom-made

## Target Details

### Target:

MICU1

### Alternative Name:

Micu1 ([MICU1 Products](#))

### Background:

Calcium uptake protein 1, mitochondrial (Calcium-binding atopy-related autoantigen 1 homolog),FUNCTION: Key regulator of mitochondrial calcium uniporter (MCU) that senses calcium level via its EF-hand domains (PubMed:24560927). MICU1 and MICU2 form a disulfide-linked heterodimer that stimulates and inhibits MCU activity, depending on the concentration of calcium (PubMed:24560927). MICU1 acts both as an activator or inhibitor of mitochondrial calcium uptake (By similarity). Acts as a gatekeeper of MCU at low concentration of calcium, preventing channel opening (By similarity). Enhances MCU opening at high calcium concentration, allowing a rapid response of mitochondria to calcium signals generated in the cytoplasm (PubMed:24560927). Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake (By similarity). Induces T-helper 1-mediated autoreactivity, which is accompanied by the release of IFNG (By similarity). {ECO:0000250|UniProtKB:Q9BPX6}.

### Molecular Weight:

54.4 kDa

## Target Details

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UniProt: [Q8VCX5](#)

## Application Details

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Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months