

ARG41345 anti-MCU antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MCU
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MCU
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 1-351 of Human MCU (NP_612366.1).
Conjugation	Un-conjugated
Alternate Names	Calcium uniporter protein, mitochondrial; CCDC109A; C10orf42; Coiled-coil domain-containing protein 109A

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Mouse kidney	
Observed Size	33 kDa	

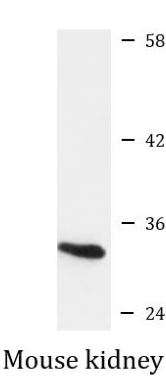
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MCU
Gene Full Name	mitochondrial calcium uniporter
Background	This gene encodes a calcium transporter that localizes to the mitochondrial inner membrane. The encoded protein interacts with mitochondrial calcium uptake 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2012]
Function	Mitochondrial inner membrane calcium uniporter that mediates calcium uptake into mitochondria. Mitochondrial calcium homeostasis plays key roles in cellular physiology and regulates cell bioenergetics, cytoplasmic calcium signals and activation of cell death pathways. Activity is regulated by MICU1 and MICU2 that stimulate and inhibit MCU activity, respectively. Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake. Involved in buffering the amplitude of systolic calcium rises in cardiomyocytes. [UniProt]
Calculated Mw	40 kDa
PTM	Phosphorylation by CaMK2 in heart leads to increased MCU current (PubMed:23051746, PubMed:25254481). The regulation of MCU by CaMK2 is however subject to discussion: another group was unable to reproduce these results (PubMed:25254480). Phosphorylated on tyrosines by PTK2B/PYK2, promoting oligomerization (PubMed:24800979). [UniProt]
Cellular Localization	Mitochondrion inner membrane; Multi-pass membrane protein. [UniProt]

Images



ARG41345 anti-MCU antibody WB image

Western blot: 25 µg of Mouse kidney lysate stained with ARG41345 anti-MCU antibody at 1:1000 dilution.