

Datasheet for ABIN6260526
anti-MCU antibody (Internal Region)



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2 Images

Overview

Quantity:	100 µL
Target:	MCU
Binding Specificity:	Internal Region
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MCU antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	A synthesized peptide derived from human CCDC109A, corresponding to a region within the internal amino acids.
Isotype:	IgG
Specificity:	CCDC109A Antibody detects endogenous levels of total CCDC109A.
Predicted Reactivity:	Pig,Zebrafish,Bovine,Horse,Sheep,Rabbit,Dog,Chicken
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	MCU
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Target Details

Alternative Name:	MCU (MCU Products)
Background:	<p>Description: Mitochondrial inner membrane calcium uniporter that mediates calcium uptake into mitochondria (PubMed:21685888, PubMed:21685886, PubMed:23101630, PubMed:22904319, PubMed:23178883, PubMed:22829870, PubMed:22822213, PubMed:24332854, PubMed:23755363, PubMed:26341627). Constitutes the pore-forming and calcium-conducting subunit of the uniporter complex (uniplex) (PubMed:23755363). Activity is regulated by MICU1 and MICU2. At low Ca²⁺ levels MCU activity is down-regulated by MICU1 and MICU2, at higher Ca²⁺ levels MICU1 increases MCU activity (PubMed:24560927, PubMed:26903221). Mitochondrial calcium homeostasis plays key roles in cellular physiology and regulates cell bioenergetics, cytoplasmic calcium signals and activation of cell death pathways. Involved in buffering the amplitude of systolic calcium rises in cardiomyocytes (PubMed:22822213). While dispensable for baseline homeostatic cardiac function, acts as a key regulator of short-term mitochondrial calcium loading underlying a 'fight-or-flight' response during acute stress: acts by mediating a rapid increase of mitochondrial calcium in pacemaker cells (PubMed:25603276). participates in mitochondrial permeability transition during ischemia-reperfusion injury (By similarity). Regulates glucose-dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake (PubMed:22904319, PubMed:22829870). Mitochondrial calcium uptake in skeletal muscle cells is involved in muscle size in adults (By similarity). Regulates synaptic vesicle endocytosis kinetics in central nerve terminal (By similarity). Involved in antigen processing and presentation (By similarity).</p> <p>Gene: MCU</p>
Molecular Weight:	40 kDa
Gene ID:	90550
UniProt:	Q8NE86
Pathways:	Positive Regulation of Peptide Hormone Secretion , Carbohydrate Homeostasis

Application Details

Application Notes:	WB 1:1000-3000, IHC 1:50-1:200, ELISA(peptide) 1:20000-1:40000
Restrictions:	For Research Use only

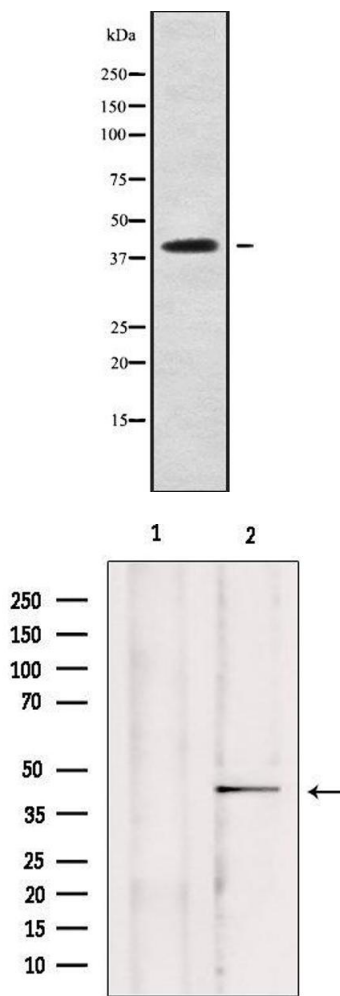
Handling

Format:	Liquid
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Handling

Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western blot analysis of CCDC109A using HepG2 whole cell lysates

Western Blotting

Image 2. Western blot analysis of extracts from mouse brain, using CCDC109A Antibody. Lane 1 was treated with the blocking peptide.