

Datasheet for ABIN7146314  
**anti-MCU antibody (AA 155-233)**



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3 Images

## Overview

Quantity:	100 µg
Target:	MCU
Binding Specificity:	AA 155-233
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MCU antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunohistochemistry (IHC)

## Product Details

Immunogen:	Recombinant Human Calcium uniporter protein, mitochondrial protein (155-233AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

## Target Details

Target:	MCU
Alternative Name:	MCU ( <a href="#">MCU Products</a> )
Background:	Background: Mitochondrial inner membrane calcium uniporter that mediates calcium uptake into mitochondria (PubMed:21685888, PubMed:21685886, PubMed:23101630,

## Target Details

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 Ca(2+) levels MCU activity is down-regulated by MICU1 and MICU2, at higher Ca(2+) 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).

Aliases: MCU antibody, C10orf42 antibody, CCDC109ACalcium uniporter protein antibody, mitochondrial antibody, HsMCU antibody, Coiled-coil domain-containing protein 109A antibody

UniProt: [Q8NE86](#)

Pathways: [Positive Regulation of Peptide Hormone Secretion](#), [Carbohydrate Homeostasis](#)

## Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200,

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300  
Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be

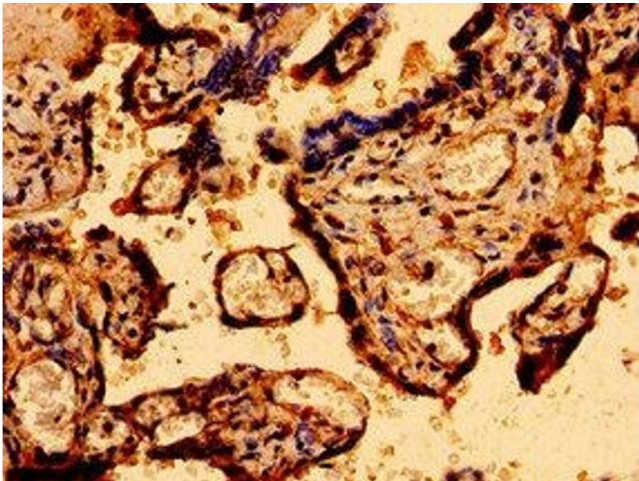
Handling

handled by trained staff only.

Storage: -20 °C,-80 °C

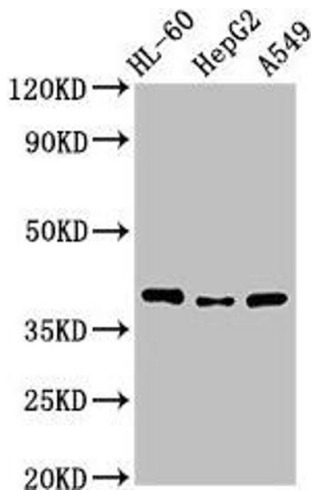
Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



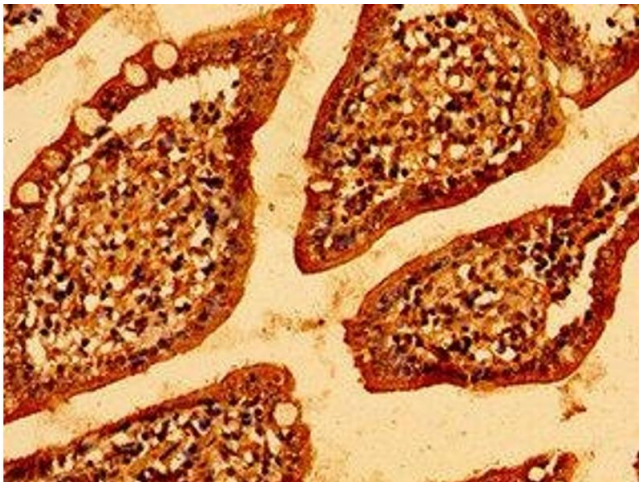
Immunohistochemistry

**Image 1.** Immunohistochemistry of paraffin-embedded human placenta tissue using ABIN7146314 at dilution of 1:100



Western Blotting

**Image 2.** Western Blot Positive WB detected in: HL60 whole cell lysate, HepG2 whole cell lysate, A549 whole cell lysate  
All lanes: MCU antibody at 3.4 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 40, 37, 36 kDa Observed band size: 40 kDa



Immunohistochemistry

**Image 3.** Immunohistochemistry of paraffin-embedded human small intestine tissue using ABIN7146314 at dilution of 1:100