

## Basic Information

Product Name	Anti-CCDC109A/MCU Antibody	
Gene Name	MCU	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat, monkey	
Tested Application	WB, IHC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human MCU recombinant protein (Position: V51-D351).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	34 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

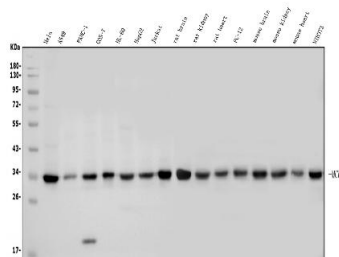
## Background Information

The mitochondrial calcium uniporter (MCU) is a transmembrane protein that allows the passage of calcium ions from a cell's cytosol into mitochondria. Its activity is regulated by MICU1 and MICU2, which together with the MCU make up the mitochondrial calcium uniporter complex. 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.

## Reference

Anti-CCDC109A/MCU Antibody被引用在1文献中。

## Selected Validation Data



Western blot analysis of CCDC109A/MCU using anti-CCDC109A/MCU antibody (A00685-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HELA whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human PANC-1 whole cell lysates,

Lane 4: monkey COS-7 whole cell lysates,

Lane 5: human HL-60 whole cell lysates,

Lane 6: human HEPG2 whole cell lysates,

Lane 7: human Jurkat whole cell lysates,

Lane 8: rat brain tissue lysates,

Lane 9: rat kidney tissue lysates,

Lane 10: rat heart tissue lysates,

Lane 11: rat PC-12 whole cell lysates,

Lane 12: mouse brain tissue lysates,

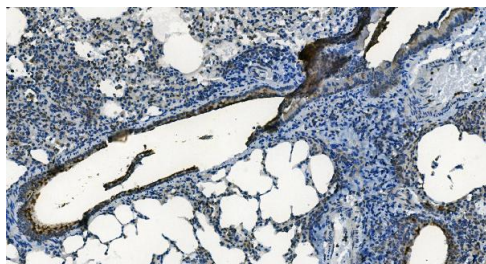
Lane 13: mouse kidney tissue lysates,

Lane 14: mouse heart tissue lysates,

Lane 15: mouse NIH/3T3 whole cell lysates.

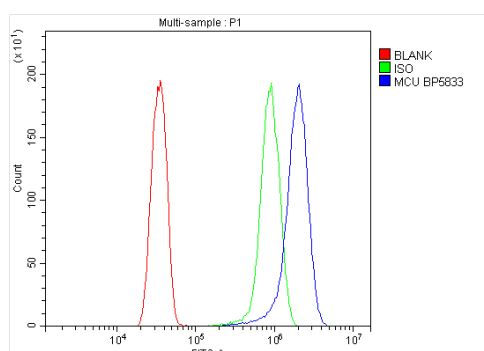
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-CCDC109A/MCU antigen affinity purified polyclonal antibody (A00685-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CCDC109A/MCU at approximately 34 kDa. The expected band size for CCDC109A/MCU is at 40 kDa.



IHC analysis of CCDC109A/MCU using anti-CCDC109A/MCU antibody (A00685-1).

CCDC109A/MCU was detected in a paraffin-embedded section of mouse lung tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-CCDC109A/MCU Antibody (A00685-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of HeLa cells using anti-CCDC109A/MCU antibody (A00685-1).

Overlay histogram showing HeLa cells stained with A00685-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CCDC109A/MCU Antibody (A00685-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.