

**C109B Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP12355b****Specification**

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**C109B Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O9NWR8</a>
Other Accession	<a href="#">NP_060388.2</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	291-320

**C109B Antibody (C-term) - Additional Information****Gene ID** 55013**Other Names**

Calcium uniporter regulatory subunit MCUB, mitochondrial, MCUB, Coiled-coil domain-containing protein 109B, CCDC109B, MCUB

**Target/Specificity**

This C109B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 291-320 amino acids from the C-terminal region of human C109B.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

C109B Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**C109B Antibody (C-term) - Protein Information****Name** MCUB {ECO:0000303|PubMed:24231807, ECO:0000312|HGNC:HGNC:26076}**Function** Negative regulator of the mitochondrial calcium uniporter (MCU), a channel that

mediates calcium uptake into the mitochondrial matrix (PubMed:[31533452](#)). MCUB is required to limit mitochondrial calcium overload during stress (PubMed:[31533452](#)). Acts as a dominant-negative regulator that displaces MCU from the functional uniplex complex and thereby decreases the association of calcium sensors MICU1 and MICU2, preventing channel gating (PubMed:[31533452](#)). Mitochondrial calcium homeostasis plays key roles in mitochondrial metabolism (PubMed:[31533452](#)). Acts as an important regulator of mitochondrial metabolism in response to stress in muscle cells: induced in response to fasting, leading to restrict mitochondrial calcium uptake, resulting in reprogramming of mitochondria toward fatty acid oxidation preference (By similarity). Acts as a regulator of macrophage polarization during skeletal muscle regeneration: inhibition of mitochondrial calcium uptake drives differentiation of macrophages with anti-inflammatory profile, promoting the differentiation and fusion of satellite cells (By similarity).

#### Cellular Location

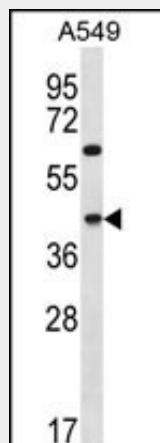
Mitochondrion inner membrane; Multi-pass membrane protein

#### C109B Antibody (C-term) - Protocols

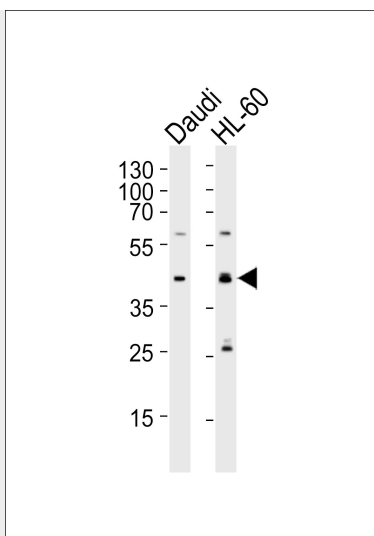
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### C109B Antibody (C-term) - Images



C109B Antibody (C-term) (Cat. #AP12355b) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the C109B antibody detected the C109B protein (arrow).



Western blot analysis of lysates from Daudi, HL-60 cell line (from left to right), using C109B Antibody (C-term)(Cat. #AP12355b). AP12355b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

#### **C109B Antibody (C-term) - References**

Kalsi, G., et al. Hum. Mol. Genet. 19(12):2497-2506(2010)  
Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)  
Lamesch, P., et al. Genomics 89(3):307-315(2007)  
Oh, J.H., et al. Mamm. Genome 16(12):942-954(2005)

#### **C109B Antibody (C-term) - Citations**

- [Mitochondrial Ca<sup>2+</sup> uniporter haploinsufficiency enhances long-term potentiation at hippocampal mossy fibre synapses.](#)
- [Impaired mitochondrial calcium efflux contributes to disease progression in models of Alzheimer's disease.](#)