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C109B Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12355b

Specification

C109B Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q9NWR8
Other Accession	NP_060388.2
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).

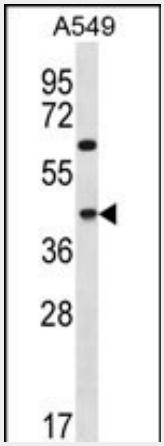
Cellular Location
Mitochondrion inner membrane; Multi-pass membrane protein

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 Cytomety
- 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).

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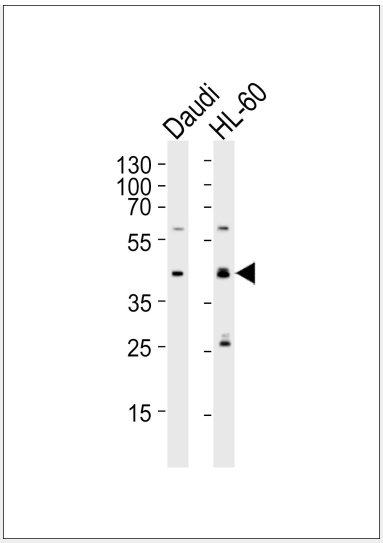

Western blot analysis of lysates from Daudi, HL-60 cell line (from left to right), using C109B Antibody (C-term)(Cat. #AP12355b). AP12355b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

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 Ca2+ 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.