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C109B Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12355b

Product Information

Application	WB, E
Primary Accession	Q9NWR8
Other Accession	NP_060388.2
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31198
Calculated MW	39082
Antigen Region	291-320

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 0.05% (V/V) Proclin 300. 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.

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

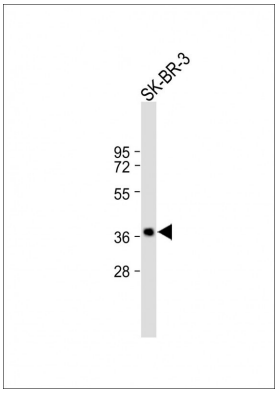
(PubMed:31533452). MCUB is required to limit mitochondrial calcium overload during stress (PubMed:31533452). Acts as a dominant- negative regulator that displaces MCU from the functional uniplex complex and thereby decreases the association of calcium sensors MICU1 and MICU2, preventing channel gating (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

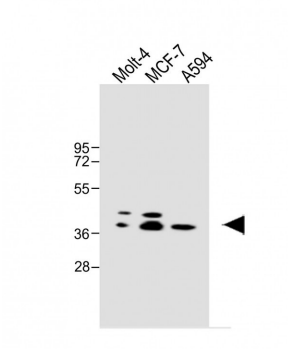
References

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)

Images



All lanes : Anti-C109B Antibody (C-term) at 1:1000 dilution Lane 1:SK-BR-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 39kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-C109B Antibody (C-term) at 1:1000 dilution Lane 1: Molt-4 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 39kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Impaired mitochondrial calcium efflux contributes to disease progression in models of Alzheimer's disease.
- Mitochondrial Ca2+ uniporter haploinsufficiency enhances long-term potentiation at hippocampal mossy fibre

synapses

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.