

Mouse MICU1 Monoclonal Antibody | anti-MICU1 antibody

Anti-MICU1 Antibody

CATALOG # AAA293391	HOST Mouse	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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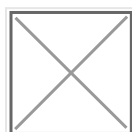
PRODUCT SYNONYMS

MICU1; Monoclonal Antibody; Anti-MICU1 Antibody; CALC; CBARA1; Calcium uptake protein 1 mitochondrial; Atopy-related autoantigen CALC; ara CALC; Calcium-binding atopy-related autoantigen 1; allergen Hom s 4; anti-MICU1 antibody

PRODUCT SPECIFICATIONS

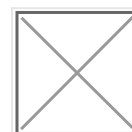
Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Specificity	Recognizes endogenous levels of MICU1 protein.
Applicable Applications for anti-MICU1 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Cellular Location	Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion intermembrane space
Tissue Location	Expressed in epithelial cell lines. Strongly expressed in epidermal keratinocytes and dermal endothelial cells
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Dilution: WB: (1/1000 - 1/2000), IH (1/100 - 1/200) Immunohistochemical analysis of MICU1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



WB (Western Blot)

Dilution: WB (1/1000 - 1/2000), IH (1/100 - 1/200) Western blot analysis of MICU1 expression in MCF7 (A), mouse brain (B), rat brain (C) whole cell lysates.

ADDITIONAL INFORMATION

Related Product Information for anti-MICU1 antibody	Mouse monoclonal antibody to MICU1 Recombinant protein corresponding to human MICU1. Key regulator of mitochondrial calcium uniporter (MCU) that senses calcium level via its EF-hand domains (PubMed:20693986, PubMed:23101630, PubMed:23747253, PubMed:24313810, PubMed:24332854, PubMed:24503055, PubMed:24560927, PubMed:26341627, PubMed:26903221, PubMed:27099988). MICU1 and MICU2 form a disulfide-linked heterodimer that stimulates and inhibits MCU activity, depending on the concentration of calcium. MICU1 acts both as an activator or inhibitor of mitochondrial calcium uptake (PubMed:26903221). Acts as a gatekeeper of MCU at low concentration of calcium, preventing channel opening (PubMed:26903221). Enhances MCU opening at high calcium concentration, allowing a rapid response of mitochondria to calcium signals generated in the cytoplasm (PubMed:24560927, PubMed:26903221). Regulates glucose- dependent insulin secretion in pancreatic beta-cells by regulating mitochondrial calcium uptake (PubMed:22904319). Induces T-helper 1- mediated autoreactivity, which is accompanied by the release of IFNG (PubMed:16002733).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	116256483
NCBI GeneID	10367
NCBI Accession #	NP_006068.2
NCBI GenBank Nucleotide #	NM_006077.3
UniProt Accession #	Q9BPX6; O75785; Q9H9N6; Q9UFX0; A8MV96; B3KN20; B4DJH9; B4DPI1; B5MBY3; D3YTJ3
Molecular Weight	31,931 Da
NCBI Official Full Name	calcium uptake protein 1, mitochondrial isoform 1
NCBI Official Synonym Full Names	mitochondrial calcium uptake 1
NCBI Official Symbol	MICU1
NCBI Official Synonym Symbols	CALC; EFHA3; MPXPS; CBARA1
NCBI Protein Information	calcium uptake protein 1, mitochondrial; ara CALC; atopy-related autoantigen CALC; calcium-binding atopy-related autoantigen 1
UniProt Protein Name	Calcium uptake protein 1, mitochondrial
UniProt Gene Name	MICU1
UniProt Synonym Gene Names	CALC; CBARA1; ara CALC
UniProt Entry Name	MICU1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.