

EFHA2 Rabbit pAb
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Catalog # AP94841

Specification

EFHA2 Rabbit pAb - Product Information

Application	IHC-P, IHC-F, IF, ICC
Primary Accession	Q86XE3
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EFHA2
Epitope Specificity	451-530/530
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion (By similarity). Membrane; Single-pass membrane protein (Potential). Contains 2 EF-hand domains.
SIMILARITY	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Important Note	

EFHA2 Rabbit pAb - Additional Information

Gene ID 286097

Other Names

Calcium uptake protein 3, mitochondrial, hMICU3, EF-hand domain-containing family member A2, MICU3 {ECO:0000303|PubMed:30699349, ECO:0000312|HGNC:HGNC:27820}

Dilution

IHC-P~~N/A
IHC-F~~N/A
IF~~1:50~200
ICC~~N/A

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

EFHA2 Rabbit pAb - Protein Information

Name MICU3 {ECO:0000303|PubMed:30699349, ECO:0000312|HGNC:HGNC:27820}

Function

Tissue-specific calcium sensor of the mitochondrial calcium uniporter (MCU) channel, which specifically regulates MCU channel activity in the central nervous system and skeletal muscle (PubMed:29725115). Senses calcium level via its EF-hand domains: compared to MICU1 and MICU2, MICU3 has a higher affinity for calcium (PubMed:29725115). MICU1 and MICU3 form a disulfide-linked heterodimer that stimulates and inhibits MCU activity, depending on the concentration of calcium (PubMed:29725115). At low calcium levels, MICU1 occludes the pore of the MCU channel, preventing mitochondrial calcium uptake (PubMed:29725115). At higher calcium levels, calcium-binding to MICU1 and MICU3 induces a conformational change that weakens MCU-MICU1 interactions and moves the MICU1-MICU3 heterodimer away from the pore, allowing calcium permeation through the MCU channel (PubMed:29725115). The high calcium affinity of MICU3 lowers the calcium threshold necessary for calcium permeation through the MCU channel (PubMed:29725115). The MICU1-MICU3 heterodimer promotes flexibility of neurotransmission in neuronal cells by enhancing mitochondrial calcium uptake in presynapses (PubMed:29725115). It is also required to increase mitochondrial calcium uptake in skeletal muscle cells, thereby increasing ATP production (By similarity).

Cellular Location

Mitochondrion intermembrane space {ECO:0000250|UniProtKB:Q8IYU8}. Mitochondrion inner membrane {ECO:0000250|UniProtKB:Q8IYU8}. Note=Recruited to the mitochondrial inner membrane via its association with the uniplex complex {ECO:0000250|UniProtKB:Q8IYU8}

Tissue Location

Specifically expressed in the central nervous system and skeletal muscle.

EFHA2 Rabbit pAb - 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](#)

EFHA2 Rabbit pAb - Images

EFHA2 Rabbit pAb - Background

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