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Anti-Mitofusin 2 Picoband Antibody

Catalog # ABO11956

Specification

Anti-Mitofusin 2 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	O95140
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Mitofusin-2(MFN2) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Mitofusin 2 Picoband Antibody - Additional Information

Gene ID 9927

Other Names
Mitofusin-2, 3.6.5.-, Transmembrane GTPase MFN2, MFN2, CPRP1, KIAA0214

Calculated MW
86402 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Mitochondrion outer membrane ; Multi- pass membrane protein . Colocalizes with BAX during apoptosis.

Tissue Specificity
Ubiquitous; expressed at low level. Highly expressed in heart and kidney. .

Protein Name
Mitofusin-2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human Mitofusin 2 recombinant protein (Position: V601-R757). Human Mitofusin 2 shares 96% and 95% amino acid (aa) sequence identity with mouse and rat Mitofusin 2, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the TRAFAC class dynamin-like GTPase superfamily. Dynamin/Fzo/YdjA family. Mitofusin subfamily.

Anti-Mitofusin 2 Picoband Antibody - Protein Information

Name MFN2 {ECO:0000303|PubMed:12598526, ECO:0000312|HGNC:HGNC:16877}

Function
Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:11181170, PubMed:11950885, PubMed:19889647, PubMed:26214738, PubMed:28114303). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:28114303). Overexpression induces the formation of mitochondrial networks (PubMed:28114303). Membrane clustering requires GTPase activity and may involve a major rearrangement of the coiled coil domains (Probable). Plays a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes (By similarity). Plays an important role in the regulation of vascular smooth muscle cell proliferation (By similarity). Involved in the clearance of damaged mitochondria via selective autophagy (mitophagy) (PubMed:23620051). Is required for PRKN recruitment to dysfunctional mitochondria (PubMed:23620051). Involved in the control of unfolded protein response (UPR) upon ER stress including activation of apoptosis and autophagy during ER stress (By similarity). Acts as an upstream regulator of EIF2AK3 and suppresses EIF2AK3 activation under basal conditions (By similarity).

Cellular Location
Mitochondrion outer membrane; Multi-pass membrane protein Note=Colocalizes with BAX during apoptosis

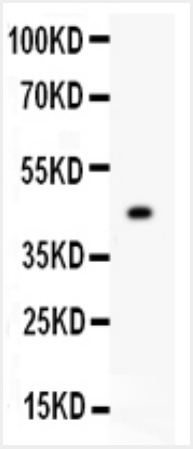
Tissue Location
Ubiquitous; expressed at low level. Highly expressed in heart and kidney.

Anti-Mitofusin 2 Picoband Antibody - 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

Anti-Mitofusin 2 Picoband Antibody - Images



Anti- Mitofusin-2 Picoband antibody, ABO11956, Western blottingAll lanes: Anti Mitofusin-2 (ABO11956) at 0.5ug/mlWB: Recombinant Human Mitofusin-2 Protein 0.5ngPredicted bind size: 45KDObserved bind size: 45KD

Anti- Mitofusin-2 Picoband antibody, ABO11956, Western blottingAll lanes: Anti Mitofusin-2 (ABO11956) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: A549 Whole Cell Lysate at 40ugPredicted bind size: 86KDObserved bind size: 86KD

Anti-Mitofusin 2 Picoband Antibody - Background

Mitofusin-2 is a protein that in humans is encoded by the MFN2 gene. It is mapped to chromosome 1 and encodes a 757-amino acid protein that contains an ATP/GTP-binding site motif. This gene is expressed in many tissues and cell lines such as brain and KG-1 with the highest expression in heart and skeletal muscle. It has been found that MFN2 triggers mitochondrial energization, at least in part, by regulating OXPHOS expression through signals that are independent of its role as a

mitochondrial fusion protein. And it contributes to the maintenance and operation of the mitochondrial network. Axonal CMT type 2A and autosomal dominant HMSN VI are caused by MFN2 and mutations in MFN2, which emphasizes its important role of mitochondrial function for both optic atrophies and peripheral neuropathies.