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Anti-Mitofusin 2 Picoband Antibody

Catalog # ABO11956

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.

Additional Information

Gene ID	9927
Other Names	Mitofusin-2, 3.6.5.-, Transmembrane GTPase MFN2, MFN2, CPRP1, KIAA0214
Calculated MW	86402
Application Details	Western blot, 0.1-0.5 □g/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. .
Source	Eukaryota
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.

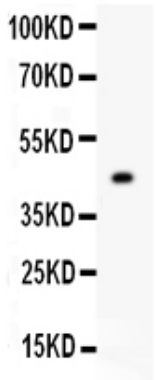
Protein Information

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.

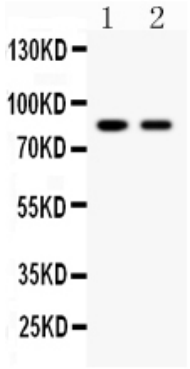
Background

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.

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

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