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Anti-Mitofusin 1 Picoband Antibody

Catalog # ABO11955

Product Information

Application	WB
Primary Accession	Q8IWA4
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Mitofusin-1(MFN1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	55669
Other Names	Mitofusin-1, 3.6.5.-, Fzo homolog, Transmembrane GTPase MFN1, MFN1
Calculated MW	84160
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Mitochondrion outer membrane ; Multi- pass membrane protein .
Tissue Specificity	Ubiquitous. Expressed at slightly higher level in kidney and heart. Isoform 2 may be overexpressed in some tumors, such as lung cancers. .
Source	Eukaryota
Protein Name	Mitofusin-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminal of human Mitofusin 1 (23-49aa DQLLEFVTEGSHFVEATYKNPELDRIA), different from the related mouse and rat sequences by one amino acid.
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.

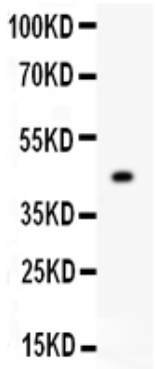
Protein Information

Name	MFN1
Function	Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:12475957, PubMed:12759376, PubMed:27920125, PubMed:28114303). Membrane clustering requires GTPase activity (PubMed:27920125). It may involve a major rearrangement of the coiled coil domains (PubMed:27920125, PubMed:28114303). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:12475957, PubMed:12759376). Overexpression induces the formation of mitochondrial networks (in vitro) (PubMed:12759376). Has low GTPase activity (PubMed:27920125, PubMed:28114303).
Cellular Location	Mitochondrion outer membrane; Multi-pass membrane protein
Tissue Location	Detected in kidney and heart (at protein level) (PubMed:12759376). Ubiquitous (PubMed:11950885, PubMed:12759376) Expressed at slightly higher level in kidney and heart (PubMed:12759376). Isoform 2 may be overexpressed in some tumors, such as lung cancers (PubMed:11751411).

Background

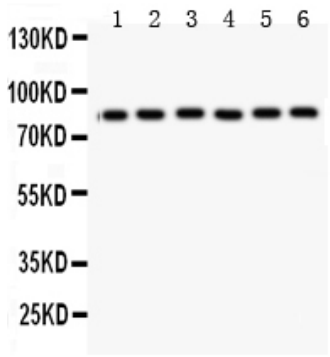
Mitofusin-1 is a protein that in humans is encoded by the MFN1 gene. It is an 80 □90 kDa mitochondrial member of the dynamin family of molecules. It is ubiquitously expressed, and found in the outer mitochondrial membrane. The protein encoded by this gene is a mediator of mitochondrial fusion, and thereby contribute to the dynamic balance between fusion and fission that determines mitochondria morphology. MFN1 is known to form oligomers, either with itself or MFN □2, and to undergo ubiquitination by MARCH5. MFN □1 has two key domains. One is a coiled □coil region that mediates MFN □1: MFN □1/2 binding, and a second is a GTPase domain whose cleavage of GTP is necessary for membrane fusion. Overexpression of MFN1 caused perinuclear mitochondrial clustering.

Images



Anti- Mitofusin 1 Picoband antibody, ABO11955, Western blottingAll lanes: Anti Mitofusin 1 (ABO11955) at 0.5ug/mlWB: Recombinant Human Mitofusin 1 Protein 0.5ngPredicted bind size: 45KDObserved bind size: 45KD

Anti- Mitofusin 1 Picoband antibody, ABO11955, Western blottingAll lanes: Anti Mitofusin 1 (ABO11955) at 0.5ug/mlLane 1: Rat Cardiac Muscle Tissue Lysate at 50ugLane 2: Rat Kidney Tissue Lysate at 50ugLane 3:



Mouset Cardiac Muscle Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: COLO320 Whole Cell Lysate at 40ugLane 6: A549 Whole Cell Lysate at 40ugPredicted bind size: 84KDObserved bind size: 84KD

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