

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 µg/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 reconstitution, 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 blotting
All lanes: Anti Mitofusin 1 (ABO11955) at 0.5ug/ml
WB: Recombinant Human Mitofusin 1 Protein 0.5ng
Predicted bind size: 45KD
Observed bind size: 45KD

Anti- Mitofusin 1 Picoband antibody, ABO11955, Western blotting
All lanes: Anti Mitofusin 1 (ABO11955) at 0.5ug/ml
Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug
Lane 2: Rat Kidney Tissue Lysate at 50ug
Lane 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

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