

Anti-Mitofusin 1 Picoband Antibody
Catalog # ABO11955

Specification

Anti-Mitofusin 1 Picoband Antibody - 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.

Anti-Mitofusin 1 Picoband Antibody - Additional Information

Gene ID 55669

Other Names

Mitofusin-1, 3.6.5.-, Fzo homolog, Transmembrane GTPase MFN1, MFN1

Calculated MW

84100 MW KDa

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. .

Protein Name

Mitofusin-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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^o 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 1 Picoband Antibody - 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

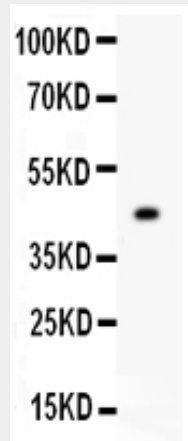
Detected in kidney and heart (at protein level) (PubMed:12759376). Ubiquitous (PubMed:11950885, PubMed:12759376) Expressed at slightly higher level in kidney and heart (PubMed:12759376). Isoform 2 may be overexpressed in some tumors, such as lung cancers (PubMed:11751411).

Anti-Mitofusin 1 Picoband Antibody - Protocols

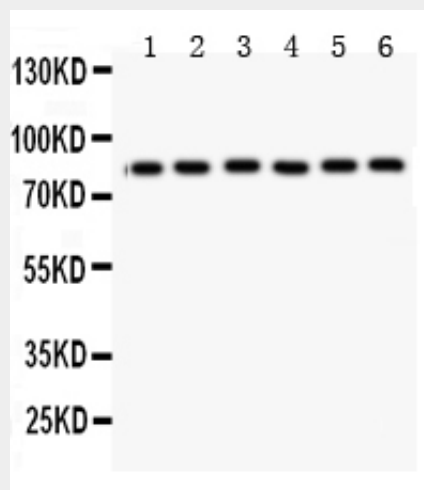
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Mitofusin 1 Picoband Antibody - 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 50ug Lane 4: HELA Whole Cell Lysate at 40ug Lane 5: COLO320 Whole Cell Lysate at 40ug Lane 6: A549 Whole Cell Lysate at 40ug Predicted bind size: 84KD Observed bind size: 84KD

Anti-Mitofusin 1 Picoband Antibody - 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 MFN2, and to undergo ubiquitination by MARCH5. MFN1 has two key domains. One is a coiled-coil region that mediates MFN1: MFN2 binding, and a second is a GTPase domain whose cleavage of GTP is necessary for membrane fusion. Overexpression of MFN1 caused perinuclear mitochondrial clustering.