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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 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.

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

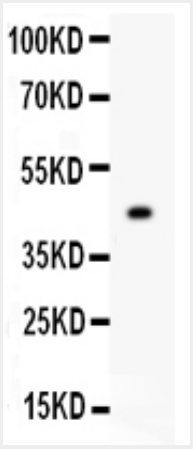
Tissue Location
Detected in kidney and heart (at protein level) (PubMed:12759376). Ubiquitous (PubMed:11950885, PubMed:12759376) Expressed at slightly higher level in kidney and heart (PubMed:12759376). Isoform 2 may be overexpressed in some tumors, such as lung cancers (PubMed:11751411).

Anti-Mitofusin 1 Picoband Antibody - Protocols

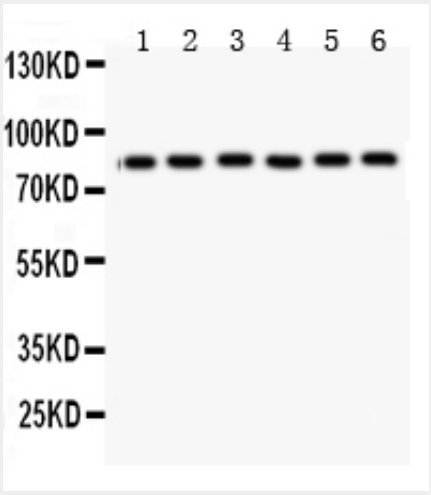
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Mitofusin 1 Picoband Antibody - 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

Anti-Mitofusin 1 Picoband Antibody - Background

Mitofusin-1 is a protein that in humans is encoded by the MFN1 gene. It is an 80Â90 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 MFNÂ2, and to undergo ubiquitination by MARCH5. MFNÂ1 has two key domains. One is a coiledÂ-coil region that mediates MFNÂ1: MFNÂ1/2 binding, and a second is a GTPase domain whose cleavage of GTP is necessary for membrane fusion. Overexpression of MFN1 caused perinuclear mitochondrial clustering.