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Mitofusin 2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10679

Specification

Mitofusin 2 Antibody - Product Information

Application	**WB**
Primary Accession	O95140
Other Accession	EAW71727
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**86402**

Mitofusin 2 Antibody - Additional Information

Gene ID 9927

Application & Usage	**Western blotting (0.5-4 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes 68 kDa and 86 kDa bands from samples of human, mouse, rat origins. Reactivity to other species has not been tested.**

Other Names
mitofusin2, mitofusin 2, mitofusin-2, MFN2, CMT2A, CMT2A2, CPRP1, HSG, KIAA0214, MARF

Target/Specificity
Mitofusin 2

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Mitofusin 2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Mitofusin 2 Antibody - 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.

Mitofusin 2 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

Mitofusin 2 Antibody - Images

Mitofusin 2 Antibody - Background

Mitofusin 2 (Mfn 2) is mostly expressed in the heart and muscle tissues. It is a transmembrane protein that mediates mitochondria fusion and plays a central role in the maintenance of mitochondrial morphology. A GTPase domain is required for the function of Mitofusin proteins. Mutations in Mfn2 can lead to Charcot-Marie-Tooth disease, a common inherited disorder of the peripheral nervous system. Mfn2 may also be associated with obesity and/or apoptosis.