

Rabbit Mitofusin Polyclonal Antibody | anti-MFN1 antibody

Mitofusin Antibody

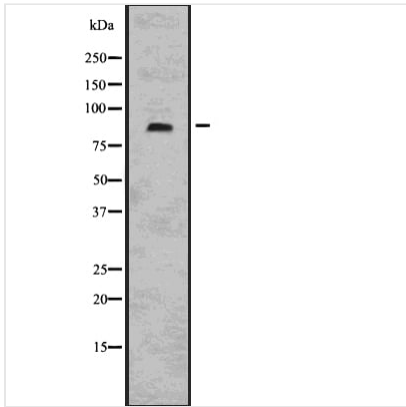
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327211	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

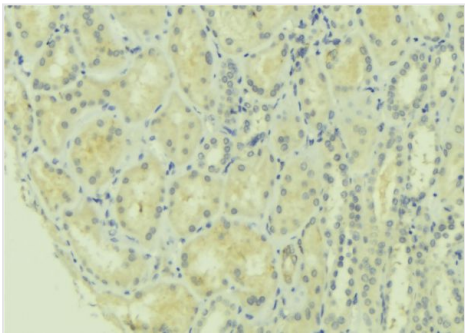
Mitofusin; Polyclonal Antibody; Mitofusin Antibody; Fzo homolog; Hfzo1; Hfzo2; MFN 1; Mfn1; MFN1_HUMAN; Mitochondrial transmembrane GTPase Fzo 1; Mitochondrial transmembrane GTPase FZO 2; Mitochondrial transmembrane GTPase FZO1B; Mitofusin 1; Mitofusin-1; Mitofusin1; MS996; Putative transmembrane GTPase; Transmembrane GTPase MFN1; anti-MFN1 antibody

PRODUCT SPECIFICATIONS

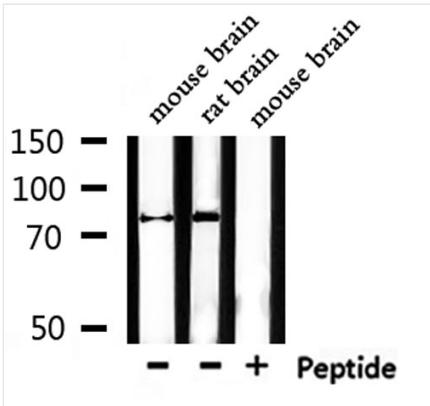
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Mitofusin antibody detects endogenous levels of total Mitofusin
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	741
Applicable Applications for anti-MFN1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Mitofusin
Subcellular Location	Cytoplasm and Mitochondrion Outer Membrane.
Tissue Specificity	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).
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Bovine (92%), Horse (92%), Sheep (92%), Rabbit (100%), Dog (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of Mitofusin using 293 whole cell lysates



IHC (Immunohistochemistry)
AAA327211 at 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from mouse brain, rat brain, using Mitofusin Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MFN1 antibody

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).

Subunit Structure: Homodimer, also in the absence of bound GTP (PubMed:27920125, PubMed:28114303). Forms higher oligomers in the presence of a transition state GTP analog (PubMed:28114303). Forms homomultimers and heteromultimers with MFN2 (By similarity). Oligomerization is essential for mitochondrion fusion (PubMed:27920125, PubMed:28114303). Component of a high molecular weight multiprotein complex (PubMed:12759376). Interacts with VAT1 (By similarity).

Post-translational Modifications: Ubiquitinated by non-degradative ubiquitin by PRKN (PubMed:23933751). Deubiquitination by USP30 inhibits mitochondrial fusion (By similarity). Ubiquitinated by MARCH5 (PubMed:20103533). When mitochondria are depolarized and dysfunctional, it is ubiquitinated by a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex that contains FBXO7 and PRKN (PubMed:23933751).

Similarity: A helix bundle is formed by helices from the N-terminal and the C-terminal part of the protein. The GTPase domain cannot be expressed by itself, without the helix bundle. Rearrangement of the helix bundle and/or of the coiled coil domains may bring membranes from adjacent mitochondria into close contact, and thereby play a role in mitochondrial fusion. Belongs to the TRAFAC class dynamin-like GTPase superfamily. Dynamin/Fzo/YdjA family. Mitofusin subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	45269137
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NCBI GeneID	55669
NCBI Accession #	NP_284941.2
NCBI GenBank Nucleotide #	NM_033540.2
UniProt Accession #	Q8IWA4; O15323; O60639; Q9BZB5; Q9NWX2; A0A0C4DFN1; B2RAR1; D3DNR6
Molecular Weight	Observed: 84 kDa Predicted: 85 kDa
NCBI Official Full Name	mitofusin-1
NCBI Official Synonym Full Names	mitofusin 1
NCBI Official Symbol	MFN1
NCBI Official Synonym Symbols	hfzo1; hfzo2
NCBI Protein Information	mitofusin-1
UniProt Protein Name	Mitofusin-1
UniProt Gene Name	MFN1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mitofusin-antibody-immunohistochemistry-western-blot-elisa/327211>