

Rabbit Mitofusin 2 Polyclonal Antibody | anti-MFN2 antibody

Phospho-Mitofusin 2 (Ser442) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329307	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry

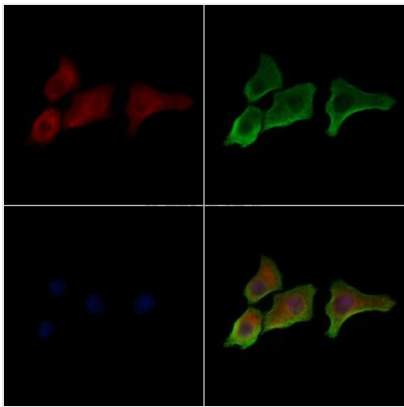
PRODUCT SYNONYMS

Mitofusin 2; Polyclonal Antibody; Phospho-Mitofusin 2 (Ser442) Antibody; CMT2A; CMT2A2; CPRP 1; CPRP1; EC 3.6.5.-; Fzo; HSG; hyperplasia suppressor gene; Hypertension related protein 1; KIAA0214; MARE; MFN 2; Mfn2; MFN2_HUMAN; Mitochondrial assembly regulatory factor; Mitofusin-2; Mitofusin2; Transmembrane GTPase MFN2; anti-MFN2 antibody

PRODUCT SPECIFICATIONS

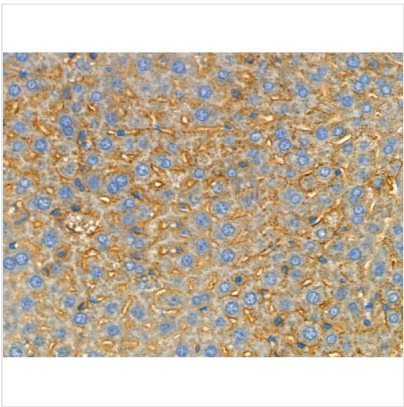
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Mitofusin 2 (Ser442) Antibody detects endogenous levels of Mitofusin 2 only when phosphorylated at Ser442. Tissue Specificity: Ubiquitous; expressed at low level. Highly expressed in heart and kidney.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MFN2 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human Mitofusin 2 around the phosphorylation site of Ser442.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by PINK1. Ubiquitinated by non-degradative ubiquitin by PRKN, promoting mitochondrial fusion; deubiquitination by USP30 inhibits mitochondrial fusion.
Subunit Structure	Forms homomultimers and heteromultimers with MFN1. Oligomerization is essential for mitochondrion fusion (Probable). Interacts with VAT1 (By similarity). Interacts with STOML2; may form heterooligomers. Interacts (phosphorylated) with PRKN. Interacts with EIF2AK3 (By similarity).
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.
Subcellular Location	Mitochondrion outer membrane>Multi-pass membrane protein. Note: Colocalizes with BAX during apoptosis.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



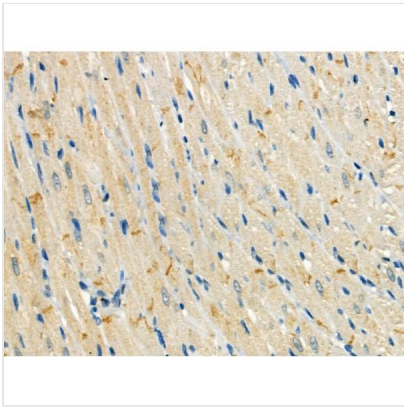
Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

Staining Mouse liver 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat heart 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MFN2 antibody	Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion. Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events. Overexpression induces the formation of mitochondrial networks. 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). Is required for PRKN recruitment to dysfunctional mitochondria. 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).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7662004
NCBI GeneID	9927
NCBI Accession #	NP_055689
NCBI GenBank Nucleotide #	NM_014874.3

UniProt Accession #	O95140; O95572; Q5JXC3; Q5JXC4; Q9H131; Q9NSX8; A8K1B3
Molecular Weight	Predicted: 83 kDa Observed: 90 kDa
NCBI Official Full Name	mitofusin-2
NCBI Official Synonym Full Names	mitofusin 2
NCBI Official Symbol	MFN2
NCBI Official Synonym Symbols	HSG; MARF; CMT2A; CPRP1; CMT2A2
NCBI Protein Information	mitofusin-2; hyperplasia suppressor; transmembrane GTPase MFN2; mitochondrial assembly regulatory factor
UniProt Protein Name	Mitofusin-2
UniProt Gene Name	MFN2
UniProt Synonym Gene Names	CPRP1; KIAA0214
UniProt Entry Name	MFN2_HUMAN

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-2-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-immunohistochemistry-elisa/329307>