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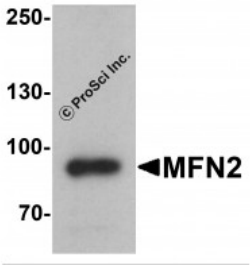
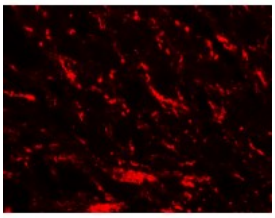
MFN2 Antibody

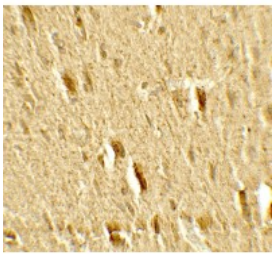
CATALOG NUMBER: 7863



Western blot analysis of MFN2 in human brain tissue lysate with MFN2 antibody at 1 ug/ml.



Immunofluorescence of MFN2 in rat brain tissue with MFN2 antibody at 20 ug/mL.



Immunohistochemistry of MFN2 in rat brain tissue with MFN2 antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	MFN2 antibody can be used for detection of MFN2 by Western blot at 1 - 2 ug/ml. Antibody can also be used for Immunohistochemistry at 5 ug/mL. For Immunoflorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1303 - Human Brain Tissue Lysate
PREDICTED MOLECULAR WEIGHT:	Predicted: 83 kDa Observed: 90 kDa
SPECIFICITY:	MFN2 antibody is human, mouse and rat reactive. At least three isoforms of MFN2 are known to exist. MFN2 antibody is predicted to not cross-react with MFN1.
IMMUNOGEN:	MFN2 antibody was raised against a 17 amino acid peptide near the center of human MFN2. The immunogen is located within amino acids 250 - 300 of MFN2.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	MFN2 antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	MFN2 antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	MFN2 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	MFN2 Antibody: HSG, MARF, CMT2A, CPRP1, CMT2A2, KIAA0214, Mitofusin-2, Transmembrane GTPase MFN2
ACCESSION NO.:	NP_055689
PROTEIN GI NO.:	7662004
OFFICIAL SYMBOL:	MFN2
GENE ID:	9927

Background

BACKGROUND:	Mitofusin 2 (MFN2) and the related protein MFN1 are mitochondrial membrane GTPase proteins that play a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes (1,2). MFN2 is ubiquitously expressed, and found in both the ER and outer mitochondrial membrane. MFN2 has two key domains: a coiled coil region that mediates MFN2 binding and a GTPase domain that likely plays a role in fusion (3,4). Both domains are essential for embryonic development and may play a role in the pathobiology of obesity. Overexpression of MFN2 causes mitochondrial dysfunction and cell death (5).
REFERENCES:	1) Chen H, Detmer SA, Ewald AJ, et al. Mitofusins Mfn1 and Mfn2 coordinately regulate mitochondrial fusion and are essential for embryonic development. J. Cell Biol. 2003; 160:189-200.
	2) Ishihara N, Eura Y, and Mihara K. Mitofusin 1 and 2 play distinct roles in mitochondrial fusion reactions via GTPase activity. J. Cell Sci. 2004; 117:6535-46.
	3) Bach D, Pich S, Soriano FX, et al. Mitofusin-2 determines mitochondrial network architecture and mitochondrial metabolism. A novel regulatory mechanism altered in obesity. J. Biol. Chem. 2003; 278:17190-7.
	4) Renaldo F, Amati-Bonneau P, Slama A, et al. MFN2, a new gene responsible for mitochondrial DNA depletion. Brain 2012; 135:e223, 1-4.

FOR RESEARCH USE ONLY

December 13, 2016