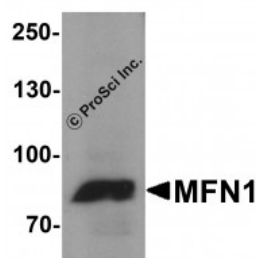




MFN1 Antibody

CATALOG NUMBER: 7861



Western blot analysis of MFN1 in A431 cell lysate with MFN1 antibody at 1 ug/ml.



Immunocytochemistry of MFN1 in A431 cells with MFN1 antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, ICC, WB
APPLICATIONS:	MFN1 antibody can be used for detection of MFN1 by Western blot at 1 - 2 ug/ml. Antibody can also be used for Immunocytochemistry at 5 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1202 - A431 Cell Lysate
PREDICTED MOLECULAR WEIGHT:	Predicted: 82 kDa Observed: 83 kDa
SPECIFICITY:	MFN1 antibody is human, mouse and rat reactive. MFN1 antibody is predicted to not cross-react with MFN2.
IMMUNOGEN:	MFN1 antibody was raised against a 17 amino acid peptide near the amino terminus of human MFN1. The immunogen is located within amino acids 20 - 70 of MFN1.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	MFN1 antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	MFN1 antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	MFN1 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:	MFN1 Antibody: hfzo1, hfzo2, Mitofusin-1, Fzo homolog
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ACCESSION NO.:	NP_284941
PROTEIN GI NO.:	45269137
OFFICIAL SYMBOL:	MFN1
GENE ID:	55669

Background

BACKGROUND: Mitofusin 1 (MFN1) and the related protein MFN2 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). MFN1 and MFN2 form homotypic and heterotypic complexes and coordinately regulate mitochondrial fusion and are essential for embryonic development (3). When ectopically expressed, MFN1 inhibits the apoptosis-associated amino-terminal conformation change in the apoptotic protein Bax but not its mitochondrial translocation, indicating that MFN1 is involved in the regulating the activation of Bax on the outer mitochondrial membrane (4).

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) 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.
- 4) Ryu SW, Choi K, Park JH, et al. Mitofusin 1 inhibits an apoptosis-associated amino-terminal conformational change in Bax, but not its mitochondrial translocation, in a GTPase-dependent manner. *Cancer Lett.* 2012; 323:62-8.

FOR RESEARCH USE ONLY

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