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MFN1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16037c

Product Information

Application	WB, E
Primary Accession	Q8IWA4
Other Accession	NP_284941.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35250
Calculated MW	84160
Antigen Region	353-381

Additional Information

Gene ID	55669
Other Names	Mitofusin-1, 365-, Fzo homolog, Transmembrane GTPase MFN1, MFN1
Target/Specificity	This MFN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 353-381 amino acids from the Central region of human MFN1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MFN1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MFN1
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).
Cellular Location	Mitochondrion outer membrane; Multi-pass membrane protein
Tissue Location	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).

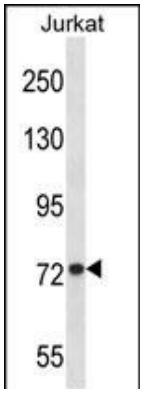
Background

The protein encoded by this gene is a mediator of mitochondrial fusion. This protein and mitofusin 2 are homologs of the Drosophila protein fuzzy onion (Fzo). They are mitochondrial membrane proteins that interact with each other to facilitate mitochondrial targeting.

References

Perumalsamy, L.R., et al. Proc. Natl. Acad. Sci. U.S.A. 107(15):6882-6887(2010)
Park, Y.Y., et al. J. Cell. Sci. 123 (PT 4), 619-626 (2010) :
Onoguchi, K., et al. PLoS Pathog. 6 (7), E1001012 (2010) :
Waxman, A.B., et al. Am. J. Respir. Cell Mol. Biol. 41(4):385-396(2009)
Wolf, C., et al. BMC Med. Genet. 10, 91 (2009) :

Images



MFN1 Antibody (Center) (Cat. #AP16037c) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the MFN1 antibody detected the MFN1 protein (arrow).

Citations

- MCCC2 is a novel mediator between mitochondria and telomere and functions as an oncogene in colorectal cancer
- Dynamic PGAM5 multimers dephosphorylate BCL-xL or FUNDC1 to regulate mitochondrial and cellular fate

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