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MFN2 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8840c

Specification

MFN2 Antibody (Center) Blocking Peptide - Product Information

Primary Accession O95140

MFN2 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 9927

Other Names
Mitofusin-2, 365-, Transmembrane GTPase MFN2, MFN2, CPRP1, KIAA0214

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8840c was selected from the Center region of human MFN2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MFN2 Antibody (Center) Blocking Peptide - Protein Information

Name MFN2 {ECO:0000303|PubMed:12598526, ECO:0000312|HGNC:HGNC:16877}

Function
Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:11181170, PubMed:11950885, PubMed:19889647, PubMed:26214738, PubMed:28114303). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:28114303). Overexpression induces the formation of mitochondrial networks (PubMed:28114303). 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) (PubMed:23620051). Is required for PRKN recruitment to dysfunctional mitochondria (PubMed:23620051). 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).

Cellular Location
Mitochondrion outer membrane; Multi-pass membrane protein Note=Colocalizes with BAX during apoptosis

Tissue Location
Ubiquitous; expressed at low level. Highly expressed in heart and kidney.

MFN2 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

MFN2 Antibody (Center) Blocking Peptide - Images

MFN2 Antibody (Center) Blocking Peptide - Background

MFN2 is a mitochondrial membrane protein that participates in mitochondrial fusion and contributes to the maintenance and operation of the mitochondrial network. This protein is involved in the regulation of vascular smooth muscle cell proliferation, and it may play a role in the pathophysiology of obesity. Mutations in this gene cause Charcot-Marie-Tooth disease type 2A2, and hereditary motor and sensory neuropathy VI, which are both disorders of the peripheral nervous system.

MFN2 Antibody (Center) Blocking Peptide - References

Calvo,J., et.al.,Arch. Neurol. 66 (12), 1511-1516 (2009)