Mitofusin-2 Rabbit mAb

Catalog No	YP-rAb-17740
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA
Gene Name	MFN2
Protein Name	Mitofusin-2
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	MFN2 ; CPRP1 ; KIAA0214 ; Mitofusin-2 ; Transmembrane GTPase MFN2
Observed Band	86kD
Calculated Molecular Weight	86kD
Cell Pathway	Mitochondrion outer membrane
Tissue Specificity	Ubiquitous; expressed at low level. Highly expressed in heart and kidney.
Function	Catalytic activity:GTP + H(2)O = GDP + phosphate.,Disease:Defects in MFN2 are the cause of Charcot-Marie-Tooth disease type 2A2 (CMT2A2) [MIM:609260]. CMT2A2 is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy.,Disease:Defects in MFN2 are the cause of Charcot-Marie-Tooth disease type 6 (CMT6) [MIM:601152]; also referred to as autosomal dominant hereditary motor and sensory neuropathy VI (HMSN6). CMT6 is an autosomal dominant form of axonal CMT associated with

optic atrophy.,Function:Essential transmembrane GTPase, which mediates mitochondrial fusion. Fusion of mitochondria occurs in many cell types and constitutes an important step in mitochondria morphology, which is balanced between fusion and fission. MFN2 acts independently of the cytoskeleton. It therefore plays a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes. Overexpression induces the formation of mitochondrial networks. Plays an important role in the regulation of vascular smooth muscle cell proliferation.,similarity:Belongs to the mitofusin family.,subcellular location:Colocalizes with BAX during apoptosis.,subunit:Forms homomultimers and heteromultimers with MFN2. Oligomerization, which is probably mediated by the coiled coil region, may play an essential role in mitochondrion fusion.,tissue specificity:Ubiquitous; expressed at low level. Highly expressed in heart and kidney.,

Background

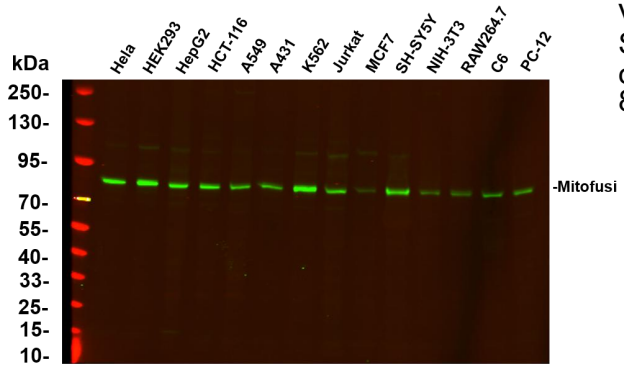
This gene encodes a mitochondrial membrane protein that participates in mitochondrial fusion and contributes to the maintenance and operation of the mitochondrial network. This protein is involved in the regulation of vascular smooth muscle cell proliferation, and it may play a role in the pathophysiology 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. Defects in this gene have also been associated with early-onset stroke. Two transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008],

matters needing attention

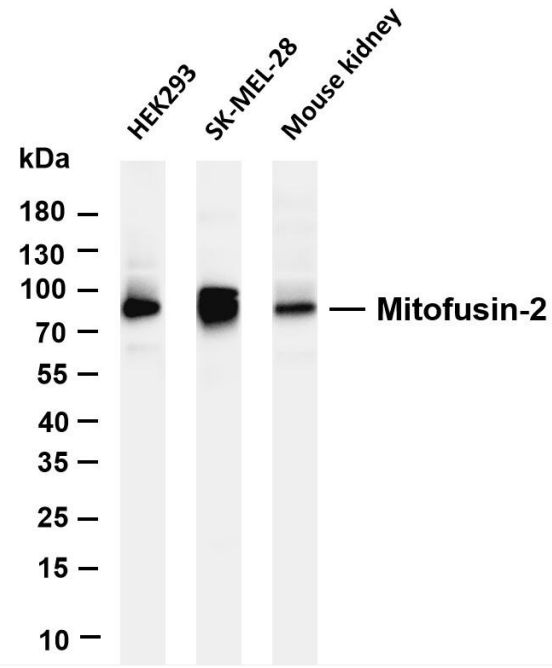
Avoid repeated freezing and thawing!

Usage suggestions

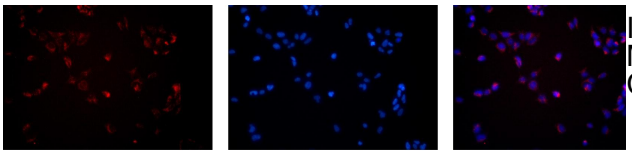
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃, over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Mitofusin-2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: SK-MEL-28 Lane 3: Mouse kidney Predicted band size: 86kDa Observed band size: 86kDa



Immunofluorescence analysis of HEK293. Picture A: Mitofusin-2 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B