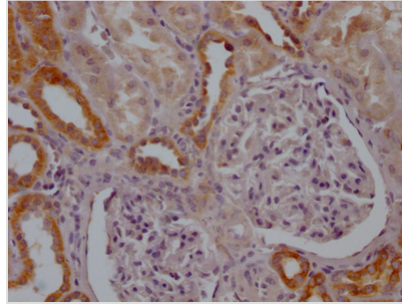




MFN2 Antibody

Product Code	CSB-RA799368A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O95140
Immunogen	A synthesized peptide derived from human Mitofusin 2
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	<p>Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:11181170, PubMed:11950885, 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).</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Cell biology; Tags & Cell Markers; Metabolism; Signal transduction
Gene Names	MFN2
Accession NO.	10F6
Image	



IHC image of CSB-RA799368A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

MFN2 is a transmembrane GTPase located on the mitochondrial outer membrane that contributes to mitochondrial network regulation. It is an essential multifunctional protein that participates in various biological processes under physical and pathological conditions, including mitochondrial fusion, reticulum–mitochondria contacts, mitochondrial quality control, and apoptosis. As a mitochondrial fusion protein, MFN2 displays bioenergetic functions implicated in the pathophysiology of neuronal and metabolic disorders. The bioenergetic role of MFN2 relies on its localization in the ER. MFN2 plays a more prominent role in regulating mitochondrial metabolism. MFN2 dysfunctions have been found to contribute to cardiovascular diseases, such as ischemia-reperfusion injury, heart failure, and dilated cardiomyopathy.

The recombinant MFN2 antibody was produced by cloning antibody genes into an expression vectors, which were subsequently introduced into mammalian cells to provide animal-free antibody production. This MFN2 antibody has been validated in ELISA, IHC. It has the features of improved affinity, stability, and consistency between different batches.