

## Rabbit Anti-Mitofusin 1 antibody

SL0557R

<b>Product Name</b>	Mitofusin 1
<b>Chinese Name</b>	Mitochondrion 融合蛋白 1 抗体
<b>Alias</b>	Mitofusin 1; Fzo homolog; MFN 1; Mitochondrial transmembrane GTPase Fzo 1; Mitochondrial transmembrane GTPase FZO 2; Mitochondrial transmembrane GTPase FZO1B; Mitofusin 1; Mitofusin1; Putative transmembrane GTPase; Transmembrane GTPase MFN1; MFN1_HUMAN; Mitofusin-1.
<b>Research Area</b>	Tumour Cell biology Neurobiology Signal transduction Apoptosis The new supersedes the old Mitochondrion
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Rat, (predicted: Human, Mouse, Horse, Rabbit, ) Flow-Cyt=1µg/Test
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	81kDa
<b>Cellular localization</b>	cytoplasmic Mitochondrion
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human Mfn 1: 651-741/741
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
<b>Attention</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>PubMed</b>	<a href="#">PubMed</a>

Mitofusin 1 (Mfn1) and mitofusin 2 (Mfn2) are homologs for the Drosophila protein fuzzy onion (Fzo). They are mitochondrial membrane proteins and are mediators of mitochondrial fusion. A GTPase domain is required for Mfn protein function but the molecular mechanisms of the GTPase-dependent reaction as well as the functional division of the two Mfn proteins are unknown. They are essential for embryonic development and may play a role in the pathobiology of obesity. Although the Mfn1 and Mfn2 genes are broadly expressed, they show different levels of expression in different tissues. Two Mfn1 transcripts are elevated in heart, while Mfn2 mRNA is abundantly expressed in heart and muscle tissue but present only at low levels in many other tissues. Mfn1 localizes to mitochondria and participates in at least two different high molecular weight protein complexes in a GTP-dependent manner. Purified recombinant Mfn1 exhibited approximately eightfold higher GTPase activity than Mfn2.

**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. MFN1 acts independently of the cytoskeleton. Overexpression induces the formation of mitochondrial networks.

**Product Detail**

**Subunit:**

Forms homomultimers and heteromultimers with MFN2. Multimerization, which is mediated by the second coiled coil region, may play an essential role in mitochondrion fusion. Participates in a high molecular weight multiprotein complex. Interacts with VAT1.

**Subcellular Location:**

Cytoplasm and Mitochondrion outer membrane.

**Tissue Specificity:**

Ubiquitous. Expressed at slightly higher level in kidney and heart. Isoform 2 may be overexpressed in some tumors, such as lung cancers.

**Post-translational modifications:**

Ubiquitinated by MARCH5.

**Similarity:**

Belongs to the mitofusin family.

**SWISS:**

Q8IWA4

**Gene ID:**  
55669

**Database links:**

[Entrez Gene: 55669](#) Human

[Entrez Gene: 67414](#) Mouse

[Entrez Gene: 192647](#) Rat

[Omim: 608506](#) Human

[SwissProt: Q8IWA4](#) Human

[SwissProt: Q811U4](#) Mouse

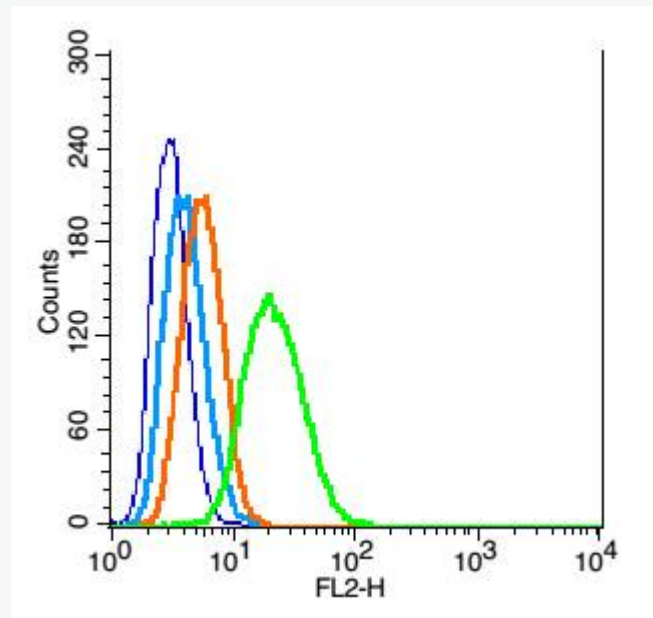
[SwissProt: Q8R4Z9](#) Rat

[Unigene: 478383](#) Human

[Unigene: 290414](#) Mouse

[Unigene: 160939](#) Rat

Mitochondrion 融合蛋白 1 具有促进 Mitochondrion 融合、抑制细胞增殖、保护细胞免于凋亡等多种功能。



### Product Picture

Blank control: RSC96(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody:

Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS

containing 0.5% BSA ; Primary Antibody Dilution: 1 $\mu$ g in 100  $\mu$ L 1X PBS containing 0.5% BSA(green).