

MFN1 Recombinant monoclonal antibody

Catalog Number: 87246-1-RR

Basic Information

Catalog Number:

87246-1-RR

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG4762

GenBank Accession Number:

BC040557

GeneID (NCBI):

55669

UNIPROT ID:

Q8IWA4

Full Name:

mitofusin 1

Calculated MW:

741 aa, 84 kDa

Observed MW:

84 kDa

Purification Method:

Protein A purification

CloneNo.:

250228A9

Recommended Dilutions:

WB: 1:2000-1:10000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:1500-1:6000

Applications

Tested Applications:

WB, IHC, IP, ELISA

Species Specificity:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : T-47D cells, C2C12 cells, NIH/3T3 cells, HSC-T6 cells, mouse brain tissue, rat brain tissue, mouse liver tissue

IP : T-47D cells,

IHC : mouse liver tissue,

Background Information

Mitofusin-1 (MFN1) is a mediator of mitochondrial fusion. This protein and mitofusin 2 are homologs of the Drosophila protein fuzzy onion (Fzo). Mitofusins are large predicted GTPases located in the outer mitochondrial membrane. They are essential for outer membrane fusion by interacting with each other to facilitate mitochondrial targeting. The mitofusins are the first known protein mediator of mitochondrial fusion, and mediate developmentally regulated post-meiotic fusion of mitochondria. Mfn1 is required on adjacent mitochondria to mediate fusion via interactions of a heptad repeat region that mediates oligomerization of the protein (PMID:16892085). Mitofusin 1 and mitofusin 2 are ubiquitinated in a PINK1/parkin-dependent manner upon induction of mitophagy (PMID: 20871098).

Storage

Storage:

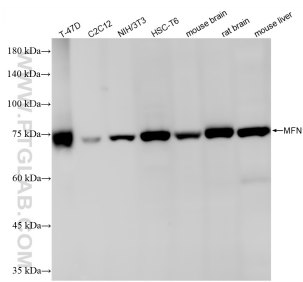
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

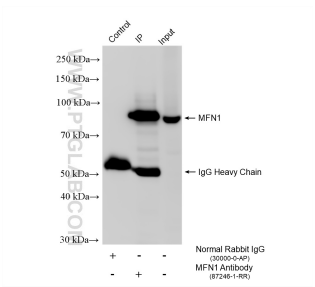
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

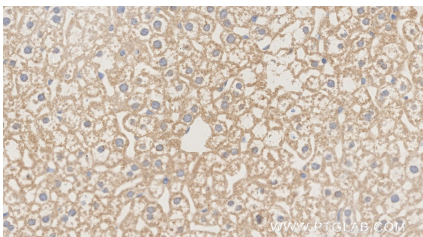
Selected Validation Data



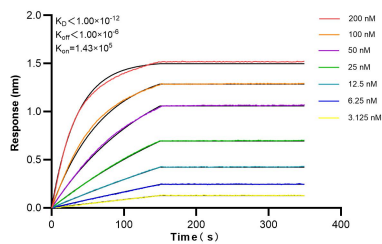
Various lysates were subjected to SDS PAGE followed by western blot with 87246-1-RR (MFN1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



IP result of anti-MFN1 (IP:87246-1-RR, 4ug; Detection:87246-1-RR 1:1000) with T-47D cells lysate 1120 ug.



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 87246-1-RR (MFN1 antibody) at dilution of 1:3000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 87246-1-RR against Human MFN1 were performed. The affinity constant is below 1 pM.