

Datasheet for ABIN1741234

anti-MFN2 antibody (AA 370-600) (Atto 390)



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3 Images

Overview

Quantity:	100 µg
Target:	MFN2
Binding Specificity:	AA 370-600
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This MFN2 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Fusion protein amino acids 370-600 (cytoplasmic N-terminus) of mouse Mitofusin-2. Rat: 97% identity (226/231 amino acids identical). Human: 92% identity (214/231 amino acids identical) ~55% identity with Mitofusin-1.
Clone:	S153-5
Isotype:	IgG2a
Specificity:	Detects ~90 kDa. No cross-reactivity against Mitofusin-1.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	MFN2
Alternative Name:	Mitofusin 2 (MFN2 Products)
Background:	Mitofusin-2 (Mfn2) is a membrane protein of the mitochondria and is important in mitochondrial fusion in mammalian cells. Mfn2 activity has also been implicated in mitochondrial metabolism and the loss of Mfn2 may be the reason for certain metabolic modifications that are seen in individuals with obesity. Mfn2 has been associated with maintaining the membrane potential of the mitochondria. Mfn2 has been shown to hinder mitochondrial antiviral signaling by inhibiting production of type 1 interferons. Mfn2 is a p53-inducible target and involved in cell proliferation, apoptosis promotion and tumor suppression.
Gene ID:	170731
NCBI Accession:	NP_573464
UniProt:	Q80U63
Pathways:	Skeletal Muscle Fiber Development

Application Details

Application Notes:	<ul style="list-style-type: none">• WB (1:1000)• ICC/IF (1:100)• optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN1741234 was sufficient for detection of Mitofusin-2 in 20 µg of mouse cardiac mitochondrial lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

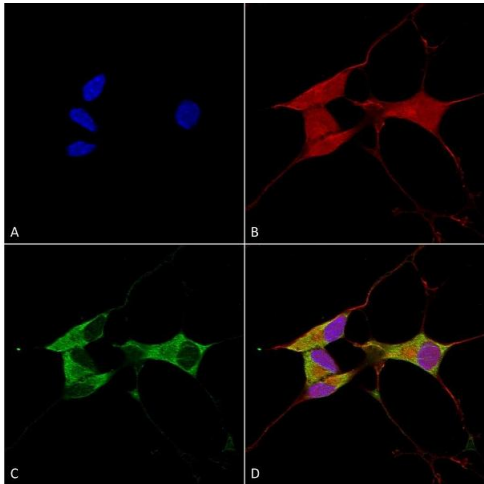
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.1 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

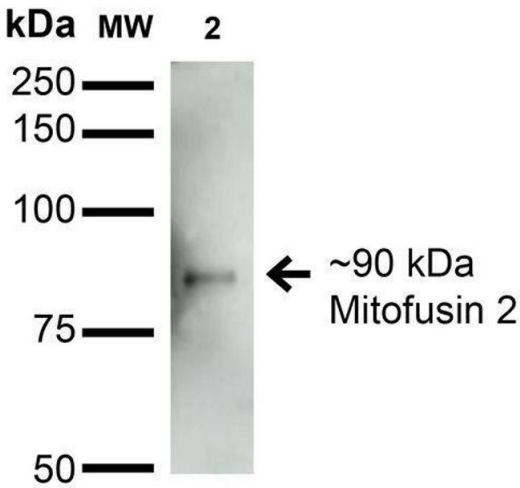
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Mitofusin 2 Monoclonal Antibody, Clone S153-5 (ABIN1741234). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-Mitofusin 2 Monoclonal Antibody (ABIN1741234) at 1:100 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Mitofusin 2 Antibody (D) Composite.



Western Blotting

Image 2. Western Blot analysis of Rat Brain Membrane showing detection of ~90 kDa Mitofusin 2 protein using Mouse Anti-Mitofusin 2 Monoclonal Antibody, Clone S153-5 . Lane 1: Molecular Weight Ladder. Lane 2: Rat Brain Membrane. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Mitofusin 2 Monoclonal Antibody at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~90 kDa.

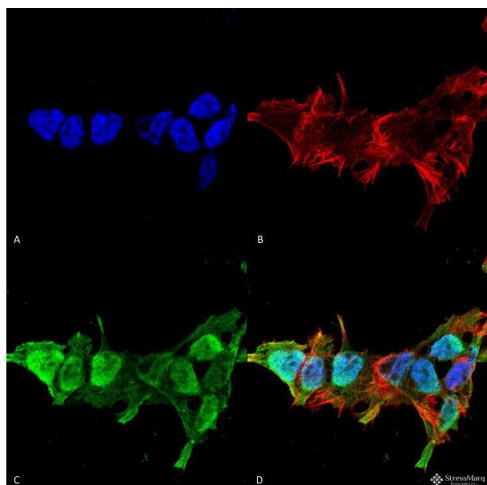
**Immunofluorescence (fixed cells)**

Image 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Mitofusin 2 Monoclonal Antibody, Clone S153-5. Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Mitofusin 2 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000; 1:5000 for 60 min RT, 5 min RT. Localization: Cytoplasm, Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Mitofusin 2 Antibody (D) Composite.