

Datasheet for 200-301-W71

Mitofusin 2 Antibody**Overview**

Description:	Anti-Mitofusin 2 (MOUSE) Monoclonal Antibody - 200-301-W71
Item No.:	200-301-W71
Size:	100 µg
Applications:	IHC, WB
Reactivity:	Mouse, Rat
Host Species:	Mouse

Product Details

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. Anti-Mitofusin-2 is ideal for research in Metabolic Processes and Hemostasis.
Synonyms:	CMT2A, CMT2A2, CPRP 1, CPRP1, Fzo, HSG, hyperplasia suppressor gene, Hypertension related protein 1, KIAA0214, MARF, MFN 2, Mfn2, Mitochondrial assembly regulatory factor, Mitofusin-2, Mitofusin2, Transmembrane GTPase MFN2
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	S153-5
Format:	IgG2a

Target Details

Gene Name:	Mfn2
Reactivity:	Mouse, Rat
Immunogen Type:	Recombinant Protein

Immunogen:	Anti-Mitofusin 2 Antibody was produced by repeated immunization of mice with a fusion protein containing amino acids 370-600 of mouse Mitofusin 2.
Purity/Specificity:	Anti-Mitofusin 2 Antibody was purified from concentrated tissue culture supernate by Protein G chromatography. BLAST analysis suggests that it is 97% identical to rat, 92% identical to human and ~55% identical to Mitofusin 1.
Relevant Links:	• UniProtKB - Q80U63 • GeneID - 170731

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-Mitofusin 2 Antibody is tested for Western Blots, Immunohistochemistry and Immunocytochemistry. Expect a band approximately ~90kDa on specific lysates or tissues. Does not cross react with Mitofusin 1. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IHC:	User Optimized
WB:	1:1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1mg/mL by UV absorbance at 280 nm
Buffer:	1X PBS, pH 7.4
Preservative:	0.1% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

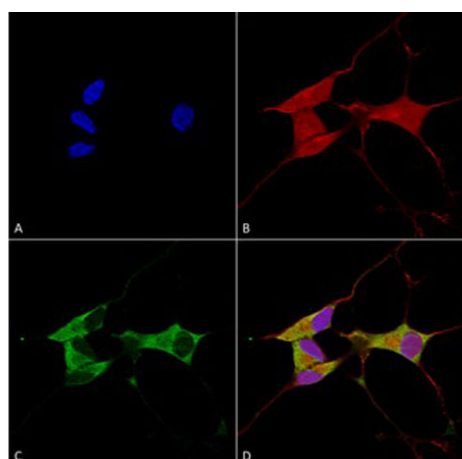
Shipping & Handling

Shipping Condition:	Wet Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

Immunofluorescence of Mouse Anti-Mitofusin 2 Monoclonal Antibody.

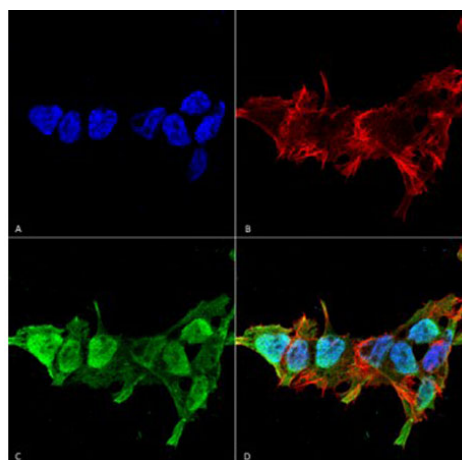
Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human.

Fixation: 4% PFA for 15 min.

Primary Antibody: Mouse Anti-Mitofusin 2 Monoclonal Antibody at 1:100 for overnight at 4°C.

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, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Mitofusin 2 Antibody (D) Composite.



Immunofluorescence Microscopy

Immunofluorescence of Mouse Anti-Mitofusin 2 Monoclonal Antibody.

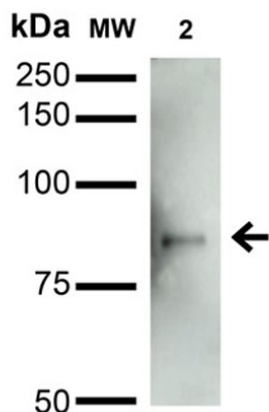
Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human.

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.

**Western Blot**

Western Blot of Mouse Anti-Mitofusin 2 Monoclonal Antibody.

Load: 15 µg. Lane 1: Molecular Weight Ladder. Lane 2: Rat Brain Membrane.

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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.