Product Datasheet

DRP1 Antibody
NB110-55237SS

Unit Size: 0.025 ml

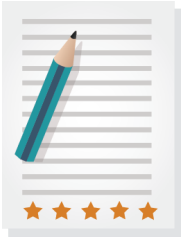
Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 19

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB110-55237

Updated 12/20/2023 v.20.1



NB110-55237SS

DRP1 Antibody

Product Information	
Unit Size	0.025 ml
Concentration	1 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Glycine and 0.15M NaCl

Product Description	
Host	Rabbit
Gene ID	10059
Gene Symbol	DNM1L
Species	Human, Mouse, Rat
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 23658809).
Immunogen	A synthetic peptide made to an N-terminal region within residues 1-100 of the human DRP1 protein. [Swiss-Prot# O00429]

Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500, Simple Western 1:50, Immunohistochemistry 2.5 ug/ml, Immunocytochemistry/ Immunofluorescence 1:50-1:400, Immunoprecipitation, Immunohistochemistry-Paraffin 2.5 ug/ml
Application Notes	This DRP1 antibody is useful for Immunohistochemistry-paraffin embedded sections, Immunocytochemistry/Immunofluorescence and Western blot analysis where a band is seen at ~81 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. In ICC/IF, cytoplasmic staining was observed in HeLa cells. Use in Immunoprecipitation reported in scientific literature (PMID 25299344). In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

Publications

Zhao Q, Liu Z, Song P et al. Mitochondria Derived Vesicle Packaging as a Novel Therapeutic Mechanism in Pulmonary Hypertension American journal of respiratory cell and molecular biology 2023-09-15 [PMID: 37713305]

Dufour D, Dumontet T, Sahut-Barnola I et al. Loss of SUMO-specific protease 2 causes isolated glucocorticoid deficiency by blocking adrenal cortex zonal transdifferentiation Research Square 2022-03-18 [PMID: 36543805] (WB, Mouse)

McAlinden KD, Naidu V, Sohal SS, Sharma P In utero Exposure to Nicotine Containing Electronic Cigarettes Increases the Risk of Allergic Asthma in Female Offspring Am. J. Physiol. Lung Cell Mol. Physiol. 2020-08-12 [PMID: 32783625]

Li G, Chan Y. L, et al. E-cigarettes damage the liver and alter nutrient metabolism in pregnant mice and their offspring. Ann N Y Acad Sci 2020-09-01 [PMID: 32557680]

Li G, Chan Y. L, et al. A Mitochondrial Specific Antioxidant Reverses Metabolic Dysfunction and Fatty Liver Induced by Maternal Cigarette Smoke in Mice. Nutrients 2019-07-21 [PMID: 31330878]

Chen SD, Zhen YY, Lin JW et al. Dynamin-Related Protein 1 Promotes Mitochondrial Fission and Contributes to The Hippocampal Neuronal Cell Death Following Experimental Status Epilepticus CNS Neurosci Ther 2016-08-31 [PMID: 27577016] (WB, Human)

Zou P, Liu L, Zheng LD et al. Coordinated Upregulation of Mitochondrial Biogenesis and Autophagy in Breast Cancer Cells: The Role of Dynamin Related Protein-1 and Implication for Breast Cancer Treatment Oxid Med Cell Longev 2016-09-01 [PMID: 27746856] (IF/IHC, Human)

Ishizu N, Yui D, Hebisawa A et al. Impaired striatal dopamine release in homozygous Vps35 D620N knock-in mice. Hum Mol Genet 2016-08-25 [PMID: 27562021] (WB, Mouse)

Thomas M, Felcht M, Kruse K et al. Angiopoietin-2 stimulation of endothelial cells induces alphavbeta3 integrin internalization and degradation. J Biol Chem 2010-07-30 [PMID: 20519501] (Human)

Fu J, Yu Hm, Chiu Sy et al. Disruption of SUMO-Specific Protease 2 Induces Mitochondria Mediated neurodegeneration. PLoS Genet. 2014-10-01 [PMID: 25299344] (IF/IHC, IP, WB, Mouse)

Montaigne D, Marechal X, Coisne A et al. Myocardial Contractile Dysfunction is Associated with Impaired Mitochondrial Function and Dynamics in Type 2 Diabetic but not in Obese Patients. Circulation. 2014-06-13 [PMID: 24928681] (WB, Human)

Stavru F, Palmer AE, Wang C et al. Atypical mitochondrial fission upon bacterial infection. Proc Natl Acad Sci U S A. 2013-10-01 [PMID: 24043775] (ICC/IF, Human)

More publications at http://www.novusbio.com/NB110-55237

Procedures

Protocol specific for DRP1 Antibody (NB110-55237)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence Protocol for DRP1 Antibody (NB110-55237)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB110-55237

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications