Product Datasheet

Perilipin Antibody - BSA Free
NB110-40760

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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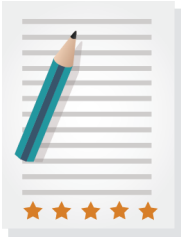
Updated 1/11/2026 v.20.1



NB110-40760

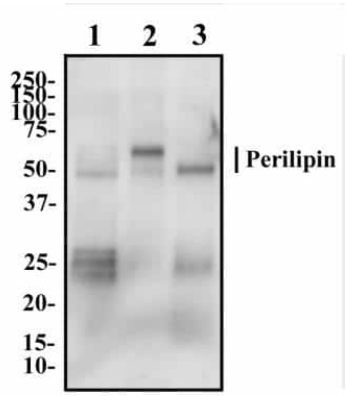
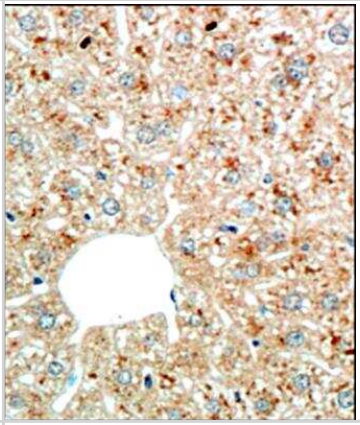
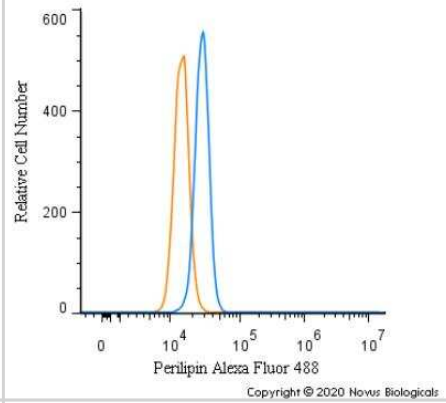
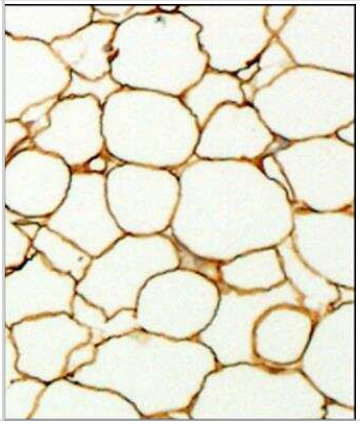
Perilipin Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	60 kDa

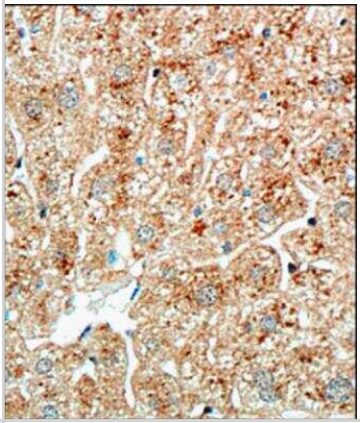
Product Description	
Description	Novus Biologicals Rabbit Perilipin Antibody - BSA Free (NB110-40760) is a polyclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-Perilipin Antibody: Cited in 16 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	5346
Gene Symbol	PLIN1
Species	Human, Mouse, Rat, Porcine, Fish
Reactivity Notes	Fish reactivity reported in scientific literature (PMID: 27012897).
Immunogen	This Perilipin Antibody was developed against a synthetic peptide made to a region between residues 450-522 (C-terminus) of the human Perilipin protein. [Swiss-Prot# O60240]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Imaging Mass Cytometry
Recommended Dilutions	Western Blot 2 ug/mL, Flow Cytometry 5 - 10 ug/mL, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence reported in scientific literature, Immunohistochemistry-Paraffin 1:200, Imaging Mass Cytometry
Application Notes	This Perilipin antibody is useful for Western blot anlaysis where a band at ~60 kDa is seen. This Perilipin Antibody is validated for Imaging Mass Cytometry from a verified customer review.

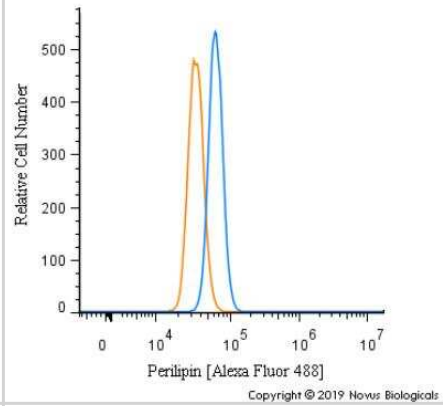
Images

Western Blot: Perilipin Antibody [NB110-40760] - Total protein from Human breast (lane 1), Human adipose membrane fraction (lane 2) and Human adipose tissue (lane 3) were separated on a 12% gel by SDS-PAGE. Protein was transferred to PVDF membrane, probed with 2 ug/mL anti-perilipin antibody followed by anti-rabbit HRP conjugated secondary antibody and detected with chemiluminescence.	
Immunohistochemistry-Paraffin: Perilipin Antibody [NB110-40760] - IHC analysis of formalin fixed paraffin embedded section of liver tissue from mouse with Perilipin antibody at 1:200 dilution. The hepatocytes developed specific staining in the cytoplasm and around the nuclei of some cells, the immunostaining reflected a punctate appearance which is potentially the ER of the cells.	
Flow Cytometry: Perilipin Antibody [NB110-40760] - An intracellular stain was performed on U2OS cells with Perilipin Antibody NB110-40760AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.	
Immunohistochemistry-Paraffin: Perilipin Antibody [NB110-40760] - IHC analysis of formalin fixed paraffin embedded section of fat tissue from mouse with Perilipin antibody at 1:200 dilution. The antibody generated an expected staining in the adipocytes towards periphery of the cells.	

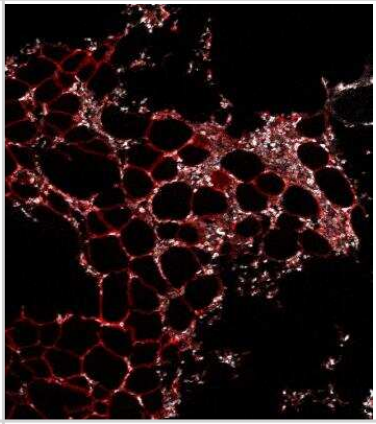
Immunohistochemistry-Paraffin: Perilipin Antibody [NB110-40760] - IHC analysis of formalin fixed paraffin embedded section of liver tissue from mouse with Perilipin antibody at 1:200 dilution. The hepatocytes developed specific staining in the cytoplasm and around the nuclei of some cells, the immunostaining reflected a punctate appearance which is potentially the ER of the cells.



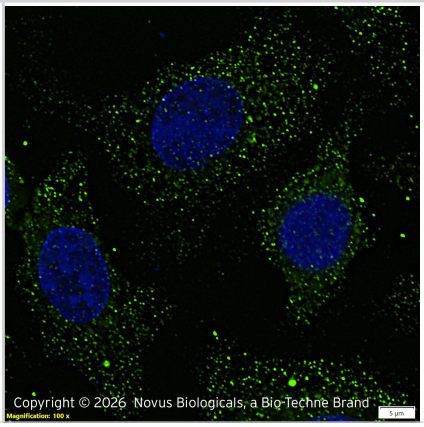
Flow Cytometry: Perilipin Antibody [NB110-40760] - An intracellular stain was performed on MCF7 cells with Perilipin Antibody NB110-40760AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.

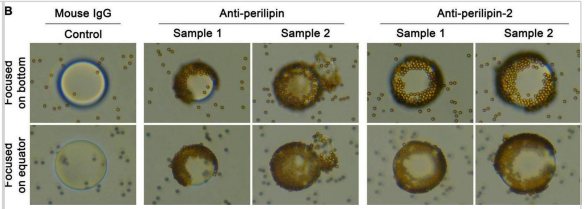


Imaging Mass Cytometry: Perilipin Antibody [NB110-40760] - Human bone marrow analyzed by IMC. Perilipin antibody conjugated with 151Eu and used 1:50 on human bone marrow FFPE. Perilipin - red. DNA- white. IMC image submitted by a verified customer review.



Perilipin was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Rabbit anti-Perilipin Antigen Affinity Purified Polyclonal Antibody (Catalog # NB110-40760) at 1.0 µg/mL overnight at 4C. Cells were stained using DyLight 488-conjugated Anti-Rabbit IgG (H+L) Cross-Absorbed Secondary Antibody (green), and counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.





Basic CFO structure. Basic CFO structure was investigated by determining the presence of an enveloping surface membrane and absence of a cell nucleus-like structure. (A) Some CFOs displayed a wrinkled surface (Control, CFO only) suggesting the presence of an enveloping membrane. The enveloping surface membrane and absence of a nucleus-like structure were investigated with positive staining by membrane-specific CellMask green and negative staining of DNA-binding Hoechst 33,342, respectively. K562 cells were added to indicate positive staining (200×). CellTrace CFSE failed completely to stain CFOs. (B) An indirect detection method for CFO membrane was tested by detecting membrane perilipin and perilipin-2 proteins with biotin-conjugated specific antibodies, which were revealed by secondary binding of streptavidin-conjugated nanoparticles, each of which was 4.5 µm in diameter. During microscopic imaging (400×), when the focus was set on bottom of a CFO, nanoparticles binding specifically on the CFO could be seen. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35237181), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

Publications

Li C, Xu J, Yu Q et al. Mutation of the novel acetylation site at K414R of BECN1 is involved in adipocyte differentiation and lipolysis Journal of Cellular and Molecular Medicine 2021-07-01 [PMID: 34085745] (Western Blot, Mouse)

HA Himburg, CM Termini, L Schlussel, J Kan, M Li, L Zhao, T Fang, JP Sasine, VY Chang, JP Chute Distinct Bone Marrow Sources of Pleiotrophin Control Hematopoietic Stem Cell Maintenance and Regeneration Cell Stem Cell, 2018-08-09;0(0):. 2018-08-09 [PMID: 30100167] (Western Blot, Mouse)

Zhao Y, Albrecht E, Li Z et al. Distinct Roles of Perilipins in the Intramuscular Deposition of Lipids in Glutamine-Supplemented, Low-, and Normal-Birth-Weight Piglets Frontiers in Veterinary Science 2021-06-21 [PMID: 34235195] (Western Blot, Mouse)

Kasza I, K□hn JP, V□lzke H et al. Contrasting recruitment of skin-associated adipose depots during cold challenge of mouse and human The Journal of Physiology 2022-02-01 [PMID: 33724479] (Immunohistochemistry)

Pedrosa M, Labandeira C, Lago-Baameiro N et al. Extracellular Vesicles and Their Renin-Angiotensin Cargo as a Link between Metabolic Syndrome and Parkinsons Disease Antioxidants 2023-11-26 [PMID: 38136165]

Wei F, Tuong ZK, Omer M et al. A novel multifunctional radioprotective strategy using P7C3 as a countermeasure against ionizing radiation-induced bone loss Bone research 2023-06-29 [PMID: 37385982] (IHC-P, Rat)

Mahesh M, Pandey H, Raja Gopal Reddy M et al. Carrot Juice Consumption Reduces High Fructose-Induced Adiposity in Rats and Body Weight and BMI in Type 2 Diabetic Subjects Nutr Metab Insights 2021-08-05 [PMID: 34349520]

Otani N, Tomita K, Kuroda K et al. Effects of Temporary and Permanent Muscle Denervation on Fat Graft Retention in the Latissimus Dorsi Muscle: An Experimental Study in Rats Aesthetic plastic surgery 2022-02-28 [PMID: 35226118]

Wang R, Nissen NN, Zhang Y Et al. Circulating Fatty Objects and Their Preferential Presence in Pancreatic Cancer Patient Blood Samples Front Physiol 2022-03-03 [PMID: 35237181] (Human)

Details:
Citation using the Biotin version of this antibody.

Brigger D, Riether C, van Brummelen R et al. Eosinophils regulate adipose tissue inflammation and sustain physical and immunological fitness in old age Nat Metab 2020-07-06 [PMID: 32694825] (IF/IHC, Mouse)

Kasza I, Adler D, Nelson D et al. Evaporative Cooling Provides a Major Metabolic Energy Sink Molecular Metabolism 2019-07-01 [PMID: 31302039] (ICC/IF, Mouse)

Listenberger L, Townsend E, Rickertsen C et al. Decreasing Phosphatidylcholine on the Surface of the Lipid Droplet Correlates with Altered Protein Binding and Steatosis. Cells. 2018-11-24 [PMID: 30477200] (WB, Mouse)

More publications at http://www.novusbio.com/NB110-40760

Procedures

Western Blot protocol for Perilipin Antibody (NB110-40760)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST 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 manufacturer's instructions.

Immunohistochemistry-Paraffin Protocol for Perilipin Antibody (NB110-40760)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.

Immunocytochemistry/ Immunofluorescence Protocol for Perilipin Antibody (NB110-40760)
Immunocytochemistry Protocol

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

1. Remove culture medium and wash the cells briefly in PBS. Add 4% paraformaldehyde to the dish and fix at room temperature for 10 minutes.
2. Remove the paraformaldehyde and wash the cells in PBS.
3. Permeabilize the cells with 0.1% Triton X100 or other suitable detergent for 2 min.
4. Remove the permeabilization buffer and wash three times for 5 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 5 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 5 minutes each.
10. Counter stain DNA with DAPI if required.

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Products Related to NB110-40760

NB820-59232	Human Liver Whole Tissue Lysate (Adult Whole Normal)
NB110-40760PEP	Perilipin Antibody Blocking Peptide
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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.

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