Product Datasheet

Perilipin-2/ADFP Antibody - BSA Free
NB110-40878

Unit Size: 0.1 ml

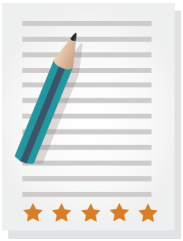
Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 2 Publications: 5

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB110-40878

Updated 12/20/2023 v.20.1



NB110-40878

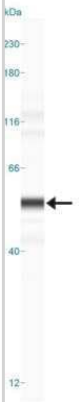
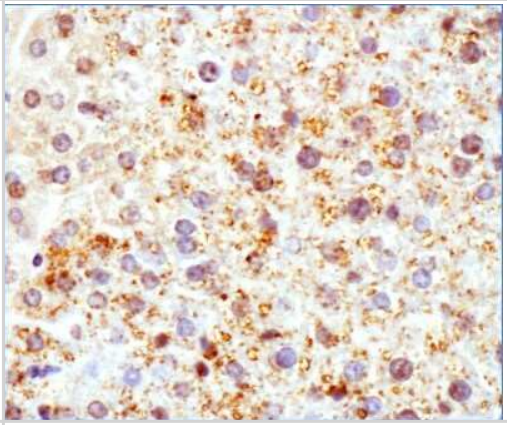
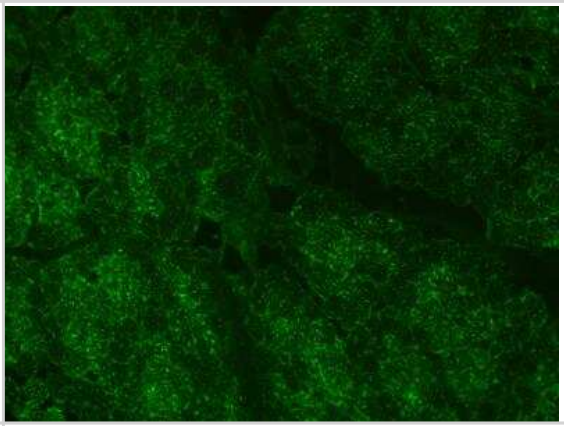
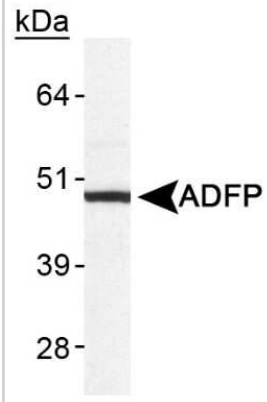
Perilipin-2/ADFP Antibody - BSA Free

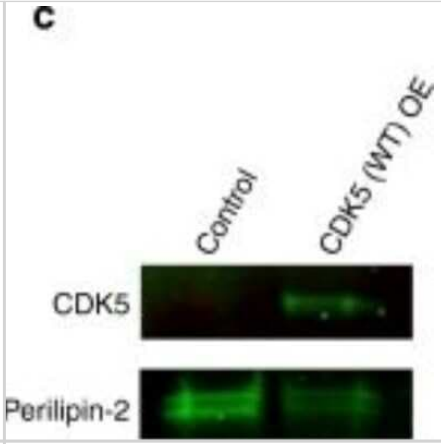
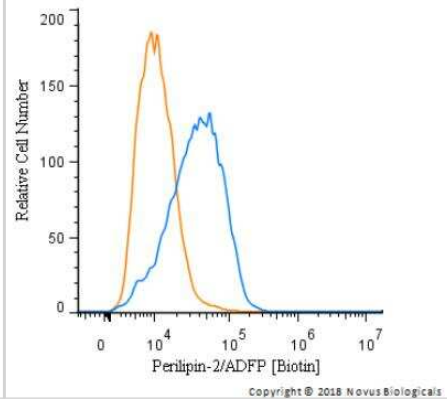
Product Information	
Unit Size	0.1 ml
Concentration	1.23 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS, 30% Glycerol

Product Description	
Host	Rabbit
Gene ID	123
Gene Symbol	PLIN2
Species	Human, Mouse, Porcine, Monkey
Reactivity Notes	Monkey reactivity reported in scientific literature (PMID: 30651536). Immunogen has 89% identity to porcine and 87% identity to bovine. Porcine reactivity reported from a verified customer review.
Immunogen	A synthetic peptide made to an internal portion of human ADFP (within residues 150-250) [Swiss-Prot# Q99541]

Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 2 ug/ml, Simple Western 1:50, Flow Cytometry 2.5 ug/mL, Immunohistochemistry 1:200, Immunohistochemistry-Paraffin 1:200, Immunohistochemistry-Frozen
Application Notes	This ADFP antibody is useful for Western blot analysis where a band is observed ~48 kDa, and Immunohistochemistry of paraffin embedded sections where cytoplasmic and membrane staining was observed in mouse liver. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue. This Perilipin-2/ADFP Antibody is validated for IHC-Fr from a verified customer review.

Images

Simple Western: Perilipin-2/ADFP Antibody [NB110-40878] - Lane view shows a specific band for ADFP in 0.5 mg/ml of HepG2 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	
Immunohistochemistry-Paraffin: Perilipin-2/ADFP Antibody [NB110-40878] - ADFP antibody was tested in mouse liver using DAB with hematoxylin counterstain.	
Immunohistochemistry-Frozen: Perilipin-2/ADFP Antibody [NB110-40878] - Detection of PLIN2 in pig sleletal muscle cross section. Antibody dilution 1:100 in PBS with 2% normal goat serum. Secondary antibody: Alexa Fluor 488 goat anti-rabbit IgG at 1:1000. IHC-Fr image submitted by a verified customer review.	
Western Blot: Perilipin-2/ADFP Antibody [NB110-40878] - Detection of human ADFP in human liver lysate.	

Western Blot: Perilipin-2/ADFP Antibody [NB110-40878] - CDK5 and 14-3-3iu and KIAA0528 are found on lipid droplet (LD) cargo. Intact purified LDs were probed with antibodies against CDK5, 14-3-3iu, KIAA0528, and GFP (negative control), the percentage of LDs that had detectable immunofluorescence signal quantification is shown in a and sample immunofluorescence images are shown in b with 2 i1/4m scale bars, and white arrows designate lipid droplets. To assess CDK5 localization to LDs, proteins were precipitated from purified LDs and analyzed by WB. Perilipin-2: (an LD marker) is present on both samples and 25A- CDK5 is present on the LDs from the CDK5 overexpression background. Image collected and cropped by Citeab from the following publication (Regulation of in vivo dynein force production by CDK5 and 14-3-3u and KIAA0528. Nat Commun (2019) licensed under a CC-BY license.	
Flow Cytometry: Perilipin-2/ADFP Antibody [NB110-40878] - An intracellular stain was performed on HepG2 cells with Perilipin-2 Antibody NB110-40878B (blue) and a matched isotype control (orange). Both antibodies were conjugated to Biotin. Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Streptavidin - R-Phycoerythrin Protein (2012-1000, Novus Biologicals).	

Publications

Al-Rashed F, Haddad D, Al Madhoun A et al. ACSL1 is a key regulator of inflammatory and macrophage foaming induced by short-term palmitate exposure or acute high-fat feeding iScience 2023-07-01 [PMID: 37416456] (WB, Human)

Dahl N Development of skeletal muscle and adipose tissues in neonatal dairy calves upon a maternal supplementation with essential fatty acids and conjugated linoleic acids Thesis 2022-01-01

Chapman DE, Reddy BJN, Huy B et al. Regulation of in vivo dynein force production by CDK5 and 14-3-3E and KIAA0528. Nat Commun 2019-01-16 [PMID: 30651536] (WB, Monkey)

Fujisawa N, Yoshioka W, Yanagisawa H, Tohyama C. Roles of cytosolic phospholipase A2a in reproductive and systemic toxicities in 2,3,7,8-tetrachlorodibenzo-p-dioxin-exposed mice. Arch. Toxicol. 2017-10-17 [PMID: 29043426] (WB, Mouse)

Goh VJ, Tan JS, Tan BC et al. Postnatal deletion of Fat storage-inducing Transmembrane Protein 2 (FIT2/FITM2) causes lethal enteropathy. J. Biol. Chem. 2015-08-24 [PMID: 26304121] (IHC-P, WB, Mouse)

Details:
Perilipin-2/PLIN2 antibody used for WB and IHC-P on mouse enterocytes (gavaged vs. non-oil gavaged L/L and iF2KO mice at day 5 post-tamoxifen treatment, Figure 6).

Procedures

Western Blot protocol specific for ADFP Antibody (NB110-40878)
Perilipin-2/ADFP Antibody:
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%.

Immunohistochemistry-Paraffin protocol for Perilipin-2/ADFP Antibody (NB110-40878)
Perilipin-2/ADFP Antibody:
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.

Staining:

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

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/NB110-40878

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