

Product Datasheet

Perilipin-4 Antibody - BSA Free NBP2-13776

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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Reviews: 1 Publications: 6

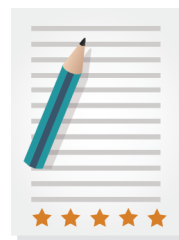
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NBP2-13776

Perilipin-4 Antibody - BSA Free

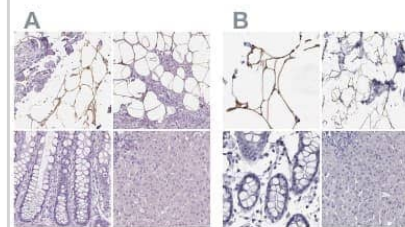
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Host	Rabbit
Gene ID	729359
Gene Symbol	PLIN4
Species	Human, Mouse, Porcine
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 26265748). Porcine reactivity reported from a verified customer review.
Immunogen	This antibody was developed against a recombinant protein corresponding to the amino acids: GVDTSKTVLTGKDTVCSGVTGAMNVAKGTIQTGVDTTKTVLTGKNTVCSGV TGAVNLAKEAIQGGLDTTKSMVMGKDTMSTGLTGAANVAKGAMQTGLNTTQ NIATGT

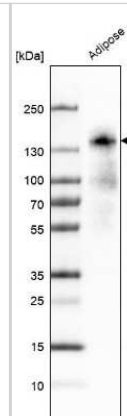
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 0.04 - 0.4 ug/ml, Immunohistochemistry 1:2500 - 1:5000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:2500 - 1:5000, Immunohistochemistry-Frozen Validated from a verified customer review.
Application Notes	IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100.

Images

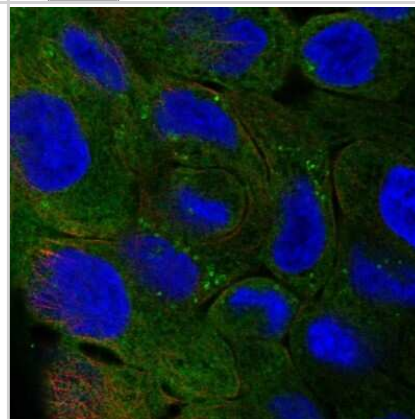
Immunohistochemistry-Paraffin: Perilipin-4 Antibody [NBP2-13776] - Staining of human adipose tissue, breast, colon and liver using Anti-Perilipin-4 antibody NBP2-13776 (A) shows similar protein distribution across tissues to independent antibody NBP2-38731 (B).



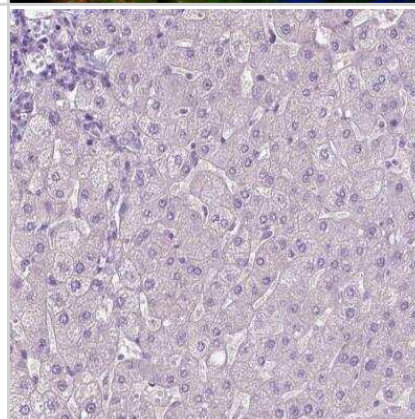
Western Blot: Perilipin-4 Antibody [NBP2-13776] - Analysis in human adipose tissue .



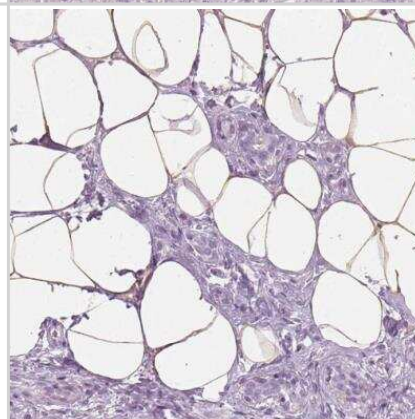
Immunocytochemistry/Immunofluorescence: Perilipin-4 Antibody [NBP2-13776] - Staining of human cell line RT4 shows localization to plasma membrane, cytosol & lipid droplets. Antibody staining is shown in green.



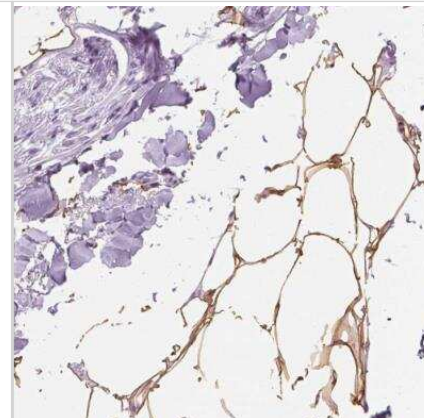
Immunohistochemistry-Paraffin: Perilipin-4 Antibody [NBP2-13776] - Staining of human liver shows no positivity in hepatocytes as expected.



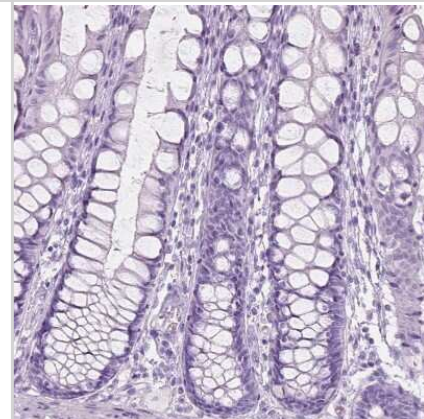
Immunohistochemistry-Paraffin: Perilipin-4 Antibody [NBP2-13776] - Staining of human breast shows moderate membranous positivity in adipocytes.



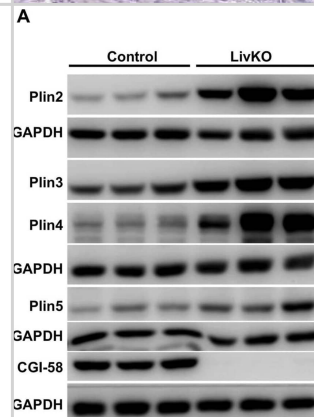
Immunohistochemistry-Paraffin: Perilipin-4 Antibody [NBP2-13776] - Staining of human adipose tissue shows moderate membranous positivity in adipocytes.



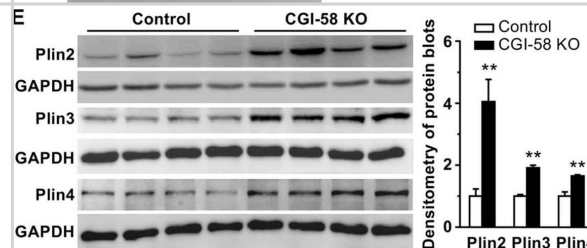
Immunohistochemistry-Paraffin: Perilipin-4 Antibody [NBP2-13776] - Staining of human colon shows no positivity in glandular cells as expected.



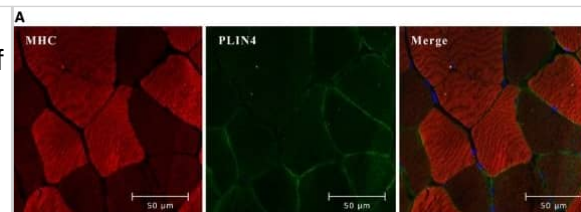
Relative levels of hepatic proteins and mRNAs of PAT family genes in the male mice fed the Western diet for 3 weeks starting at 6 weeks of age. (A) Immunoblots of perilipins and control proteins. (B) Densitometry of the immunoblots in A ($n = 5-6$). (C) Relative levels of hepatic mRNAs for perilipins in the mice at necropsy ($n = 5-6$). * $P < 0.05$; ** $P < 0.01$. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/32170127>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



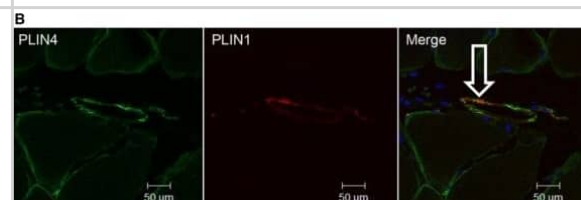
Deletion of CGI-58 in Huh7 human hepatoma cell line increases cellular lipids and perilipin expression. (A) The sgRNA sequence targeting Exon 3 of human CGI-58 gene and the sequencing result of the DNA from CGI-58 knockout (KO) Huh7 cells. (B) Immunoblots of the KO and control Huh7 cell lysates. (C) Fluorescence microscopic images of LDs stained with Bodipy (green) and nuclei stained with DAPI (blue) in the KO and control cells. (D) Triglyceride (TG) content in the KO and control cells ($n = 5$). (E) Western blots of perilipins in the KO and control cell lysates. The blots were quantified by densitometry. (F) Relative levels of mRNAs for perilipins in the KO and control cells ($n = 4$). GAPDH was used as an internal invariant control. * $P < 0.05$; ** $P < 0.01$. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/32170127>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Perilipins (PLIN)4 is mostly expressed in slow muscle fibers. (A) Representative images (400X) from confocal fluorescence microscopy of sections of paraffin-embedded biopsies from m. vastus lateralis (n = 10), stained with antibodies against myosin heavy chain fast (red, mouse anti-myosin heavy chain; skeletal, fast) and PLIN4 (green, guinea pig anti-PLIN4). Fast muscle fibers are stained in bright red color, whereas slow fibers appear as dark. (B) M. soleus and m. gastrocnemius were dissected from male C57BL/6N mice (n = 5) and Plin4 mRNA expression was determined by quantitative RT-PCR. Plin4 mRNA was normalized to Tbp mRNA. Results are presented as means $\pm$ SEM, *P < 0.05 (two-tailed Student's t-test). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/26265748>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Intramuscular adipocytes. (A) Sections of paraffin-embedded biopsies from m. vastus lateralis (n = 8) were stained with PLIN1 antibody (red, mouse anti-PLIN1) to detect adipocytes (A). Representative images (200X) were obtained by wide-field fluorescence microscopy. High magnification (1000X) of adipocytes is shown in the insert. (B) The sections were stained for PLIN4 (green, rabbit anti-PLIN4) and PLIN1 (red, mouse anti-PLIN1), showing partly co-localization in intramuscular adipocytes (n = 4). The merged image (200X) shows co-localization of the proteins (white arrow). The image was obtained by confocal fluorescence microscopy. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/26265748>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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)

Han X, Liu y, Dai y et al. Neuronal SH2B1 attenuates apoptosis in an MPTP mouse model of Parkinson's disease via promoting PLIN4 degradation *Redox Biology* 2022-06-01 [PMID: 35390677] (IHC-Fr, Mouse)

Zhang Q, Zhang P, Li B et al. The Expression of Perilipin Family Proteins can be used as Diagnostic Markers of Liposarcoma and to Differentiate Subtypes *J. Cancer* 2020-04-11 [PMID: 32368290]

Han X, Zhu J, Zhang X et al. Plin4-Dependent Lipid Droplets Hamper Neuronal Mitophagy in the MPTP/p-Induced Mouse Model of Parkinson's Disease. *Front Neurosci* 2018-06-18 [PMID: 29967574] (WB, ICC/IF, Mouse)

Pourteymour S, Lee S, Langleite TM et al. Perilipin 4 in human skeletal muscle: localization and effect of physical activity. *Physiol Rep* 2015-08-01 [PMID: 26265748] (IF/IHC, Mouse)

Heck MV, Azizov M, Stehning T et al. Dysregulated expression of lipid storage and membrane dynamics factors in Tia1 knockout mouse nervous tissue. *Neurogenetics* 2014-03-23 [PMID: 24659297] (WB, Mouse)



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NBP2-13776PEP	Perilipin-4 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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