abcam

Product datasheet

Anti-Perilipin-1 antibody ab3526

8 Abreviews 41 References 8 Images

Overview

Product name	Anti-Perilipin-1 antibody
Description	Rabbit polyclonal to Perilipin-1
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB, IHC-FoFr, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Cow, Dog, Human, Rhesus monkey
Immunogen	Synthetic peptide corresponding to Rat Perilipin-1 aa 502-517. Sequence: EPILGRTQYSQLRKKS (Peptide available as ab5009) Run BLAST with Run BLAST with

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab3526** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes

Application	Abreviews	Notes
IHC-P	★★★★★	Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000 - 1/4000. Can be blocked with Perilipin-1 peptide (ab5009). By Western blot, this antibody detects an ~62 kDa protein representing Perilipin-1 from 3T3-L1 cell extract.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 20049087
ICC/IF	★★★★★	Use at an assay dependent concentration. PubMed: 20335253
Flow Cyt		Use 3-5µg for 10^6 cells.

Target

Function
Modulator of adipocyte lipid metabolism. Coats lipid storage droplets to protect them from breakdown by hormone-sensitive lipase (HSL). Its absence may result in leanness.

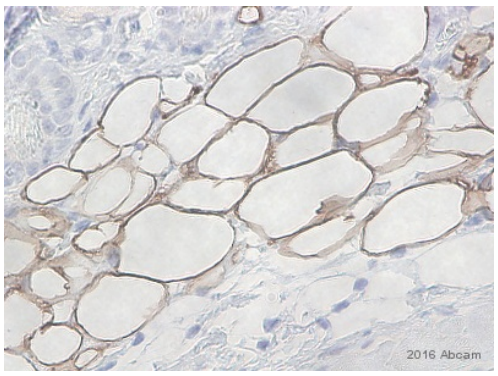
Tissue specificity
Adipocytes.

Sequence similarities
Belongs to the perilipin family.

Post-translational modifications
Major cAMP-dependent protein kinase-substrate in adipocytes, also dephosphorylated by PP1. When phosphorylated, may be maximally sensitive to HSL and when unphosphorylated, may play a role in the inhibition of lipolysis, by acting as a barrier in lipid droplet.

Cellular localization
Lipid droplet. Lipid droplet surface-associated.

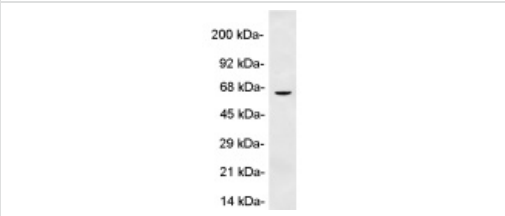
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Perilipin-1 antibody (ab3526)

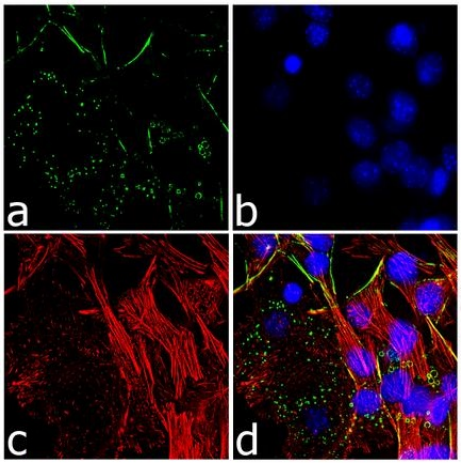
This image is courtesy of an anonymous Abreview

ab3526 staining Perilipin-1 in Mouse skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% serum for 30 minutes at 20°C; antigen retrieval was by heat mediation in an EDTA buffer. Samples were incubated with primary antibody (1/200 in PBS) for 12 hours at 4°C. A HRP-conjugated Goat anti-rabbit polyclonal (1/200) was used as the secondary antibody.



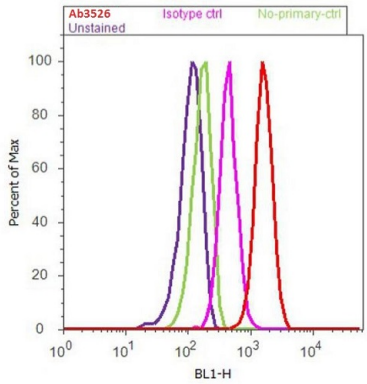
Western blot - Anti-Perilipin-1 antibody (ab3526)

Western blot detection of Perilipin-1 in 3T3-L1 cell extract using ab3526.



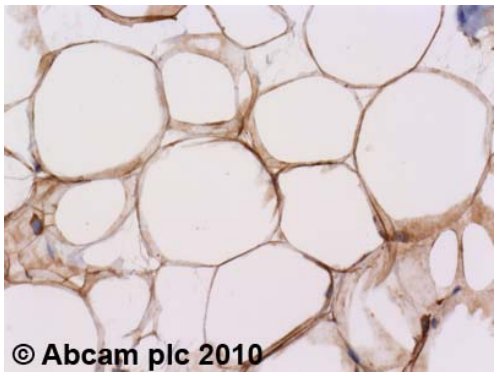
Immunocytochemistry/ Immunofluorescence - Anti-Perilipin-1 antibody (ab3526)

ab3526 staining Perilipin-1 in 3T3-L1 cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 1% BSA for 1 hour at room temperature. Samples were incubated with primary antibody (2ug/ml in 0.1% BSA) for 3 hours at room temperature and labeled with Alexa Fluor® 488-conjugated Goat anti-rabbit IgG polyclonal was used as the secondary antibody (Green, panel A). Nuclei stained with DAPI (Blue, panel B), F-actin stained with Alexa Fluor® 555 rhodamine phalloidin (Red, panel C), merged images showing cytosolic localization (panel D).



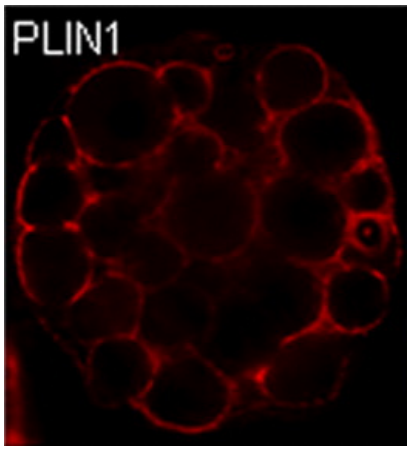
Flow Cytometry - Anti-Perilipin-1 antibody (ab3526)

ab3526 staining Perilipin-1 in 3T3-L1 cells by Flow Cytometry. Cells were fixed with 70% ethanol, permeablized with 0.25% Triton X-100 and blocked with 5% BSA for 30 minutes at room temperature. The sample was incubated with the primary antibody (3-5 ug/million cells) for 2 hours at room temperature. An Alexa Fluor® 488-conjugated Goat anti-rabbit was used as the secondary antibody (1:400), red histogram. Rabbit isotype control (pink histogram), unstained control (purple histogram) and no primary antibody control (green histogram).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Perilipin-1 antibody (ab3526)

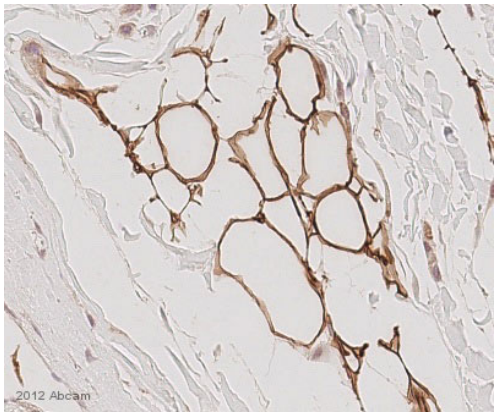
ab3526 (4µg/ml) staining Perilipin-1 in Human breast adipose using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic staining of adipocytes. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer citrate pH6.1 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Immunocytochemistry/ Immunofluorescence - Anti-Perilipin-1 antibody (ab3526)

Image from Stenson BM et al., J Biol Chem. 2011 Jan 7;286(1):370-9. doi: 10.1074/jbc.M110.179499. Epub 2010 Oct 28.; Fig 3.; January 7, 2011, The Journal of Biological Chemistry, 286, 370-379.

Immunofluorescence analysis of Human preadipocytes, staining Perilipin-1 with ab3526. An Alexa Fluor® 568-conjugated anti-rabbit IgG was used as the secondary antibody.

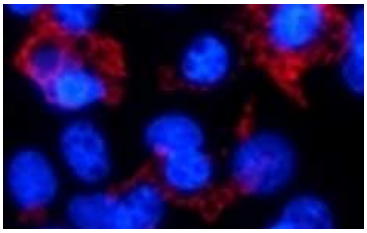


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Perilipin-1 antibody (ab3526)

This image is courtesy of an anonymous Abreview

Immunohistochemical analysis of dog mammary adipose tissue, staining Perilipin-1 with ab3526.

Tissue was fixed with formaldehyde and blocked with 1% blocking solution for 15 minutes at room temperature; antigen retrieval was by heat mediation in Tris-EDTA buffer (pH 9). Samples were incubated with primary antibody (1/200 in BSA in TBS) for 30 minutes. An undiluted HRP-conjugated goat anti-rabbit polyclonal IgG was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Perilipin-1 antibody (ab3526)

Image from Rossi CA et al, PLoS One. 2010 Jan 1;5(1):e8523, Fig 3.

ab3526 staining Perilipin-1 in rat myofibers by Immunohistochemistry (PFA fixed).Freshly isolated single myofibers were collected in 0.5 ml DMEM, 5% HS in an Eppendorf tube. Fibers and satellite cells were fixed with 4% paraformaldehyde in phosphate buffered saline, rinsed in PBS and permeabilized with Triton X-100, 0.5% in PBS. After washing, fibers and/or cells were incubated with ab3526 at a 1/50 dilution overnight at 4°C or 1 hour at 37°C. Non specific interactions were blocked with 20% goat serum. They were then washed and incubated with labeled secondary antibodies for one hour at room temperature. Satellite cells were then mounted with fluorescent mounting medium plus DAPI 100 ng/ml. Fibers were collected and moved onto a polilysine microscope slide, and then mounted.

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