Store at -20°C

#3470

Perilipin (D418) Antibody

Cell Signaling TECHNOLOGY®

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
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Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 08/12/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #5346
Swiss-Prot Acc. #O60240

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC Endogenous	M, (H)	62 kDa	Rabbit**

Background: Triacylglycerol is stored in lipid droplets as a primary energy reserve. Perilipin is localized at the periphery of lipid droplets and serves as a protective coating against lipases (1-3). Evidence suggests that PKA regulates lipolysis by phosphorylating perilipin (1,2,4,5). Phosphorylation of perilipin results in the conformational change that exposes lipid droplets to endogenous lipases, such as hormone-sensitive lipases (2). Hence, perilipin plays a pivotal role in lipid storage (2,5).

Specificity/Sensitivity: Perilipin (D418) Antibody detects endogenous levels of total perilipin protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence around Asp418 of human perilipin. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

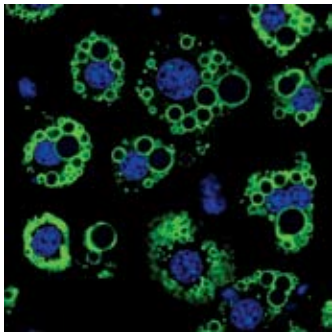
(1) Greenberg, A.S. et al. (1991) *J Biol Chem* 266, 11341-6.

(2) Brasaemle, D.L. (2007) *J Lipid Res* 48, 2547-59.

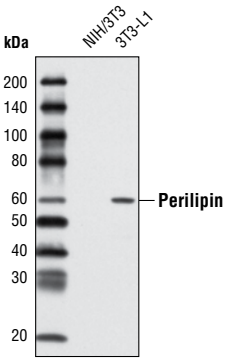
(3) Ducharme, N.A. and Bickel, P.E. (2008) *Endocrinology* 149, 942-9.

(4) Egan, J.J. et al. (1990) *J Biol Chem* 265, 18769-75.

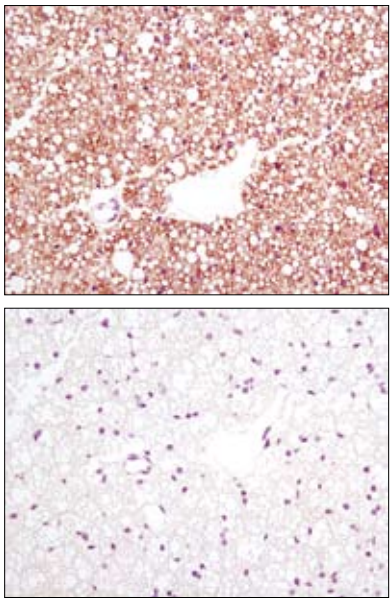
(5) Brasaemle, D.L. et al. (2009) *Mol Cell Biochem* 326, 15-21.



Confocal immunofluorescent analysis of differentiated 3T3-L1 cells using Perilipin (D418) Antibody (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Western blot analysis of extracts from NIH/3T3 and differentiated 3T3-L1 cells using Perilipin (D418) Antibody.



Immunohistochemical analysis of paraffin-embedded mouse brown fat using Perilipin (D418) Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-IC)	1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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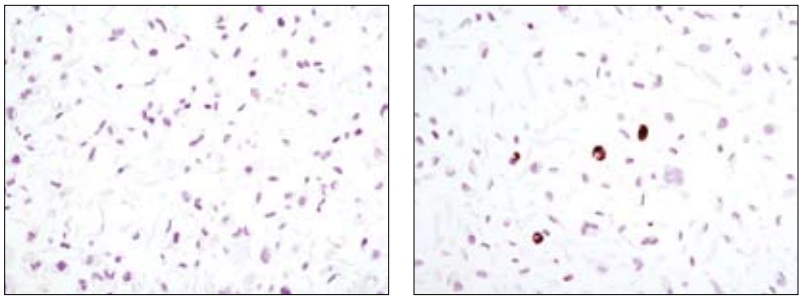
Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded 3T3-L1 cells, control (left) or differentiated (right), using Perilipin (D418) Antibody.

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