#12252 Store at -20°C

CPT1A (D3B3) Rabbit mAb

☑ 100 µl
(10 western blots)

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New 09/12

For Research Use Only. Not For Use In Diagnostic Procedures.

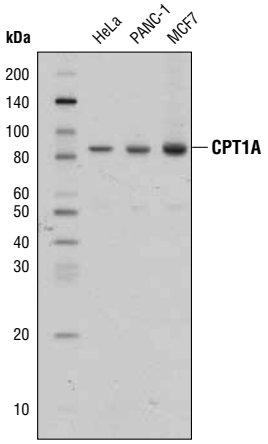
Entrez-Gene ID #1374
Swiss-Prot Acc. #P50416

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP	H	88 kDa	Rabbit IgG**
Endogenous			

Background: Carnitine palmitoyltransferase-1 (CPT1), localized to the mitochondrial outer membrane, translocates fatty acids across the mitochondrial membranes and catalyzes the rate-limiting step of β-oxidation (1, 2). There are three isoforms of this enzyme: CPT1A (liver), CPT1B (muscle), and CPT1C (brain) (1, 2). Deficiency of CPT1A results in an autosomal recessive mitochondrial fatty acid oxidation disorder (3). Studies have shown that physiological high blood glucose and insulin levels inhibit CPT1B activity in human muscle and therefore divert long-chain fatty acids toward storage in human muscle as triglycerides (4). Furthermore, mice deficient in CPT1C show less food intake and reduced body weight (5). These findings suggest that CPT1 may play a role in metabolic syndromes.

Specificity/Sensitivity: CPT1A (D3B3) Rabbit mAb recognizes endogenous levels of total CPT1A protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu213 of human CPT1A protein.



Western blot analysis of extracts from HeLa, PANC-1, and MCF7 cells using CPT1A (D3B3) Rabbit mAb.

Background References:

(1) Wolfgang, M.J. et al. (2006) *Proc Natl Acad Sci USA* 103, 7282-7.

(2) Bonnefont, J.P. et al. *Mol Aspects Med* 25, 495-520.

(3) Ogawa, E. et al. (2002) *J Hum Genet* 47, 342-7.

(4) Rasmussen, B.B. et al. (2002) *J Clin Invest* 110, 1687-93.

(5) Wolfgang, M.J. and Lane, M.D. (2011) *FEBS J* 278, 552-8.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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
Immunoprecipitation	1:50

For product 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 complementary 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.

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.