

Phospho-PKD/PKC μ (Ser916) Antibody



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

Entrez-Gene ID # 5587
Swiss-Prot Acc. # Q15139

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	115 kDa	Rabbit**

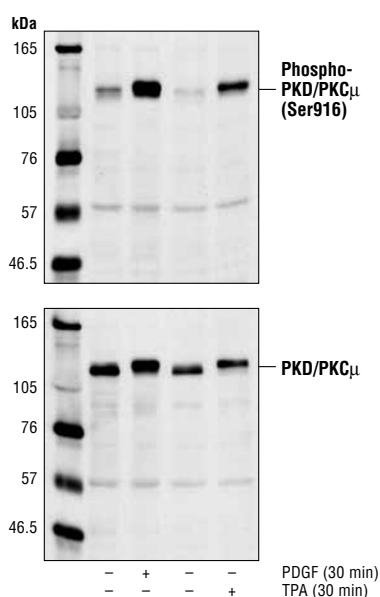
Background: Activation of PKC is one of the earliest events in a cascade leading to a variety of cellular responses such as secretion, gene expression, proliferation and muscle contraction (1,2). Protein kinase D (PKD), also called PKC μ , is a serine/threonine kinase whose activation is dependent on the phosphorylation of two activation loop sites, Ser744 and Ser748, via a PKC-dependent signaling pathway (3-5). In addition to the two activation loop sites, the carboxy terminal Ser916 has been identified as an autophosphorylation site for PKD/PKC μ . Phosphorylation at Ser916 correlates with PKD/PKC μ catalytic activity (6).

Specificity/Sensitivity: Phospho-PKD/PKC μ (Ser916) Antibody detects endogenous levels of PKD1/PKC μ only when phosphorylated at serine 916. This antibody may also cross-react with isoform PKD2, in some species.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser916 of mouse PKD. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Nishizuka, Y. (1984) *Nature* 308, 693-698.
- (2) Keranen, L.M. (1995) *Curr. Biol.* 5, 1394-1403.
- (3) Valverde, A.M. et al. (1994) *Proc. Natl. Acad. Sci.* 91, 8572-8576.
- (4) Johannes, F.J. et al. (1994) *J. Biol. Chem.* 269, 6140-6148.
- (5) Iglesias, T. et al. (1998) *J. Biol. Chem.* 273, 27662-27667.
- (6) Matthews, S.A. et al. (1999) *J. Biol. Chem.* 274, 26543-26549.



Western blot analysis of extracts from NIH/3T3 cells, untreated, PDGF-treated (50 ng/ml) or TPA-treated (0.2 μ M) using Phospho-PKD/PKC μ (Ser916) Antibody (upper) or PKD/PKC μ Antibody #2052 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/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
Immunoprecipitation 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.

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.