

# Phospho-PKD/PKC $\mu$ (Ser744/748) Antibody

- Small 100  $\mu$ l (10 western blots)
- Large 300  $\mu$ l (30 western blots)

**Orders** ■ 877-616-CELL (2355)  
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**Support** ■ 877-678-TECH (8324)  
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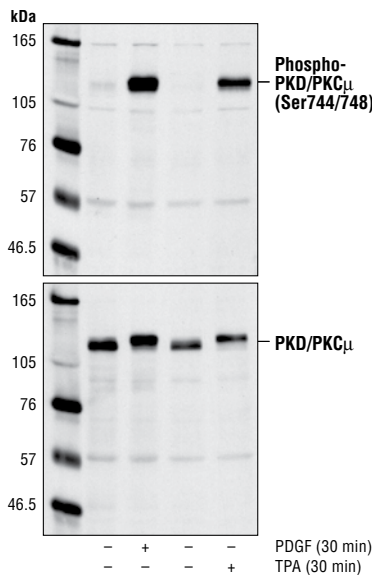
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W 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 $\mu$ , 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 $\mu$ . Phosphorylation at Ser916 correlates with PKD/PKC $\mu$  catalytic activity (6).

**Specificity/Sensitivity:** Phospho-PKD/PKC $\mu$  (Ser744/748) Antibody detects PKD1/PKC $\mu$  only when dually phosphorylated at serines 744 and 748. This antibody may also cross-react with isoforms PKD2 and PKD3/PKC $\mu$  in some species.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser744/748 of mouse PKD. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from NIH/3T3 cells, untreated, PDGF-treated (50 ng/ml) or TPA-treated (0.2  $\mu$ M) using Phospho-PKD/PKC $\mu$  (Ser744/748) Antibody (upper) or PKD/PKC $\mu$  Antibody #2052 (lower).

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

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ 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.

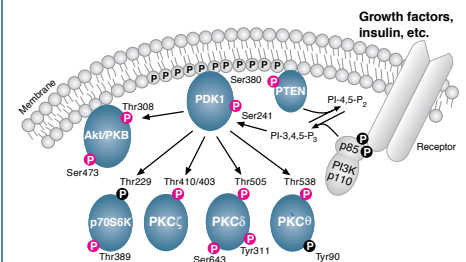
**Recommended Antibody Dilutions:**  
Western blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**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.



**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.