Revision 1

#2051 Store at -20C

Phospho-PKD/PKCμ (Ser916) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	115	Rabbit	#Q15139	5587

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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.

Specificity / Sensitivity

Phospho-PKD/PKC mu (Ser916) Antibody detects endogenous levels of PKD1/PKC mu only when phosphorylated at serine 916. Ths 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

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 PKCμ, 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/PKCμ. Phosphorylation at Ser916 correlates with PKD/PKCμ catalytic activity (6).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses

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