Revision 1

#2261 Store at -20C

Phospho-(Ser) PKC Substrate Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	Source:
WB, IP, E-P	All	Endogenous	Rabbit

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:25
Peptide ELISA (DELFIA)	1:500

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-(Ser) PKC Substrate Antibody recognizes endogenous levels of many cellular proteins only when phosphorylated at serine residues surrounded by Arg or Lys at the -2 and +2 positions and a hydrophobic residue at the +1 position. The antibody does not cross-react with nonphosphorylated serine residues, with phospho-threonine in the same motif, or with phospho-serine in other motifs.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with synthetic phospho-PKC substrate peptides. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Although protein kinase C (PKC) family members are involved in a number of signal transduction processes including secretion, gene expression, proliferation, and muscle contraction, many PKC substrates continue to be unidentified (1,2). Isozymes of PKC are subdivided into conventional PKCs (cPKC), novel PKCs (nPKC), and atypical PKCs (aPKC). PKCα, βI, βII, and γ isoforms belong to the cPKC group (1). When activated, cPKC isozymes phosphorylate substrates containing Ser or Thr, with Arg or Lys at the -3, -2, and +2 positions, and a hydrophobic amino acid at position +1 (1-3).

Background References

1. Nishikawa, K. et al. (1997) *J Biol Chem* 272, 952-60.
2. Pearson, R.B. and Kemp, B.E. (1991) *Methods Enzymol* 200, 62-81.
3. Obata, T. et al. (2000) *J Biol Chem* 275, 36108-15.

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 **E-P:** Peptide ELISA (DELFIA)

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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