#9631 Store at –20°C

Phospho-(Ser/Thr) Phe Antibody

Cell Signaling TECHNOLOGY®

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

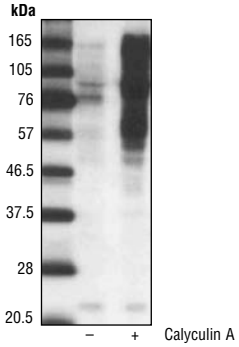
Applications	Species Cross-Reactivity*	Source**	Motif
W, IP, E-P	All	Rabbit	(Y/F/W)(S*T*)F
Endogenous			

Background: A hallmark of signal transduction pathways is the reversible phosphorylation of serine and threonine residues within specific sequences, or motifs, in target proteins. Specific signaling motifs include not only sequences that are recognized by protein kinases (1), but also those that are recognized by phosphorylation-dependent binding proteins such as 14-3-3 (2). These modular phosphoprotein interacting domains are critical elements in modulating, directing and amplifying intracellular communications. CST has pioneered the development of phospho-motif specific antibodies, which are invaluable tools for probing the complexity of phospho-regulatory pathways.

Many critical protein kinases can be regulated by phosphorylation at a specific serine or threonine surrounded by phenylalanine or tyrosine. For example, Akt, a kinase that regulates cell survival, is activated by phosphorylation at Ser473, a site surrounded by phenylalanine and tyrosine (3). RSK1, p70S6K, and certain PKC isoforms also contain a similar consensus phosphorylation site. Phosphorylation of these sites is required for kinase activity (4,5). The Phospho-(Ser/Thr) Phe Antibody is a powerful tool for discovery of new proteins containing this important regulatory motif.

Specificity/Sensitivity: Phospho-(Ser/Thr) Phe Antibody detects phospho-serine or threonine in the context of tyrosine, tryptophan or phenylalanine at the -1 position or phenylalanine at the +1 position. The antibody does not cross-react with the nonphosphorylated form of these motifs, nor does it cross-react with other phospho-serine/threonine-containing proteins and peptides. (U.S. Patent No's.: 6,441,140; 6,982,318; 7,259,022; 7,344,714; U.S.S.N. 11,484,485; and all foreign equivalents.)

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phospho-serine/threonine-phenylalanine-containing peptide. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from A431 cells, untreated or calyculin A-treated, using Phospho-(Ser/Thr) Phe Antibody.

Background References:

(1) Pinna, L.A. and Ruzzene, M. (1996) *Biochim. Biophys. Acta.* 1314, 191–225.

(2) Yaffe, M.B. and Elia, A.E. (2001) *Curr. Opin. Cell Biol.* 13, 131–138.

(3) Alessi, D.R. et al. (1996) *EMBO J.* 15, 6541–6551.

(4) Dalby, K.N. et al. (1998) *J. Biol. Chem.* 273, 1496–1505.

(5) Keranen, L.M. et al. (1995) *Curr. Biol.* 5, 1394–1403.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

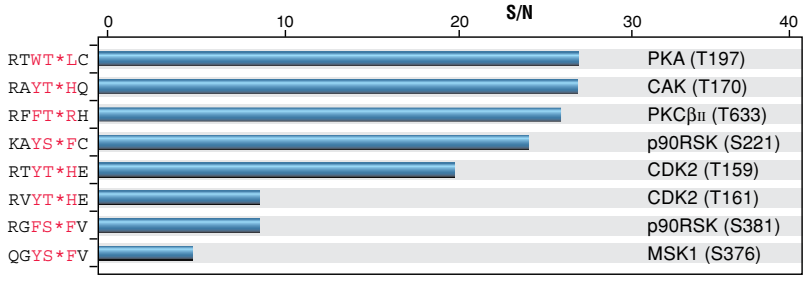
Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
ELISA (Peptide)	1:500

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.



Phospho-(Ser/Thr) Phe Antibody ELISAs: Signal to noise ratio of phospho- versus nonphospho-peptides in which the phosphorylation site is adjacent to phenylalanine, tyrosine or tryptophan. (T and S* denote phosphorylated threonine and serine.)*

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.