

**#9631** Store at -20°C

# Phospho-(Ser/Thr) Phe Antibody

100 µl  
 (10 Western mini-blot)



**Orders** ■ 877-616-CELL (2355)  
 orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
 info@cellsignal.com  
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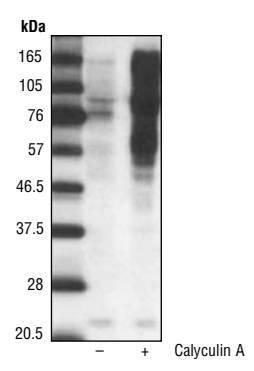
rev. 06/19/08

This product is for *in vitro* research use only and is not intended for use in humans or animals.  
 This product is not intended for use as a therapeutic or in diagnostic procedures.

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

**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.

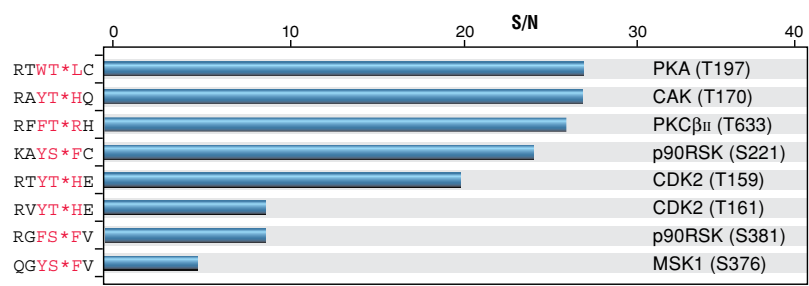
Many critical protein kinases can be regulated by phosphorylation at a specific serine or threonine surrounded by phenylalanine or tyrosine. For example, Akt, a kinase that regulates cell survival, is activated by phosphorylation at Ser473, a site surrounded by phenylalanine and tyrosine (3). RSK1, p70S6K, 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.



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

**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.



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.)

**License/Use Restrictions:** Use of CST Motif Antibodies within certain methods (e.g., U.S. Patent No.'s 7,198,896 & 7,300,753) may require a license from CST. For information regarding academic licensing terms please have your technology transfer office contact CST Legal Department at CST\_ip@cellsignal.com. For information regarding commercial licensing terms please contact CST Business Development at cbunker@cellsignal.com.

**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)	1:1000

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

- Companion Products:**
- Phospho-(Ser) PKC Substrate Antibody #2261
  - Phospho-(Thr) MAPK/CDK Substrate Mouse mAb #2321
  - Phospho-Threonine-X-Arginine Antibody #2351
  - Phospho-Threonine Antibody (P-Thr-Polyclonal) #9381
  - Phospho-Threonine-Proline Mouse mAb (P-Thr-Pro-101) #9391
  - Anti-rabbit IgG, HRP-linked Antibody #7074
  - Prestained Protein Marker, Broad Range (Premixed Format) #7720
  - Biotinylated Protein Ladder #7727
  - 20X LumiGLO® Reagent and 20X Peroxide #7003

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

- 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.

**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—ELISA 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—zebra fish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.