

#9621 Store at -20°C

Phospho-(Ser/Thr) PKA Substrate Antibody



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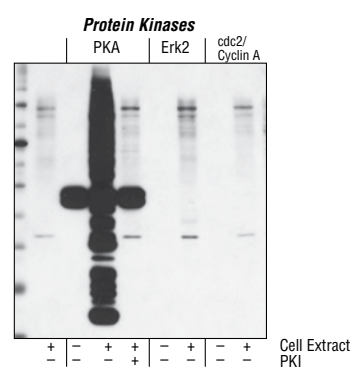
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Applications	Species Cross-Reactivity*	Source	Motif
W, IP, IHC-P, E-P Endogenous	All	Rabbit**	(K/R)(K/R)X(S*/T*)

Background: An important class of kinases, referred to as Arg-directed kinases or AGC-family kinases, includes cAMP-dependent protein kinase (PKA), cGMP-dependent protein kinase (PKG), protein kinase C, Akt and RSK. These kinases share a substrate specificity characterized by Arg at position -3 relative to the phosphorylated Ser or Thr (1,2). Phospho-PKA substrate-specific antibodies from Cell Signaling Technology are powerful tools for investigating the regulation of phosphorylation by PKA and other Arg-directed kinases, as well as for high throughput kinase drug discovery.

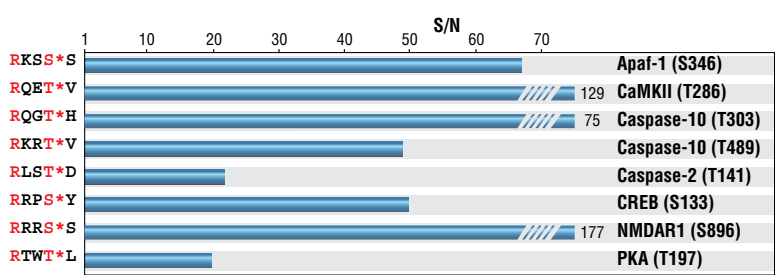
Specificity/Sensitivity: Phospho-(Ser/Thr) PKA Substrate Antibody detects peptides and proteins containing a phospho-serine/threonine residue with arginine at the -3 position. It is a useful tool in identifying substrates of AGC family kinases, including PKA and PKC. It does not cross-react with the nonphosphorylated PKA substrate motif. (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-PKA substrate peptide. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from A431 cells, phosphorylated in vitro by protein kinase A, Erk2 or cdc2/cyclin A, plus or minus PKA inhibitor (PKI), using Phospho-(Ser/Thr) PKA Substrate Antibody.

Background References:
(1) Montminy, M. (1997) *Annu Rev Biochem* 66, 807-22.
(2) Pearson, R.B. and Kemp, B.E. (1991) *Methods Enzymol* 200, 62-81.



Phospho-(Ser/Thr) PKA Substrate Antibody ELISA Assay: Signal-to-noise ratio of phospho- versus nonphospho-peptides. (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 Pharma Services Department at ptmscan@cellsignal.com.

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.

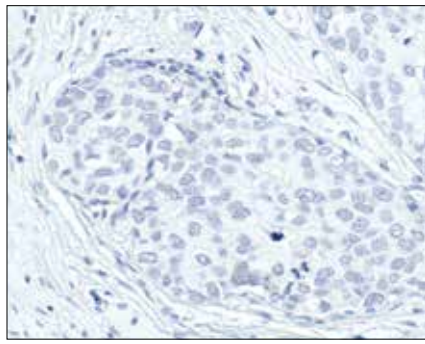
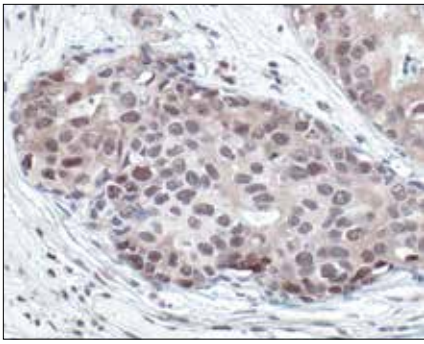
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Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*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
Immunohistochemistry (Paraffin) 1:200†
Unmasking buffer: SignalStain® Citrate Unmasking Solution (10X) #14746
Antibody diluent: SignalStain® Antibody Diluent #8112
Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

ELISA-Peptide 1:1000
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.

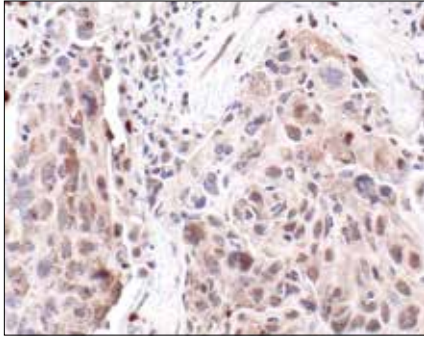


Immunohistochemical analysis of paraffin-embedded human breast carcinoma control (left) or λ phosphatase-treated (right), using Phospho-(Ser/Thr) PKA Substrate Antibody.

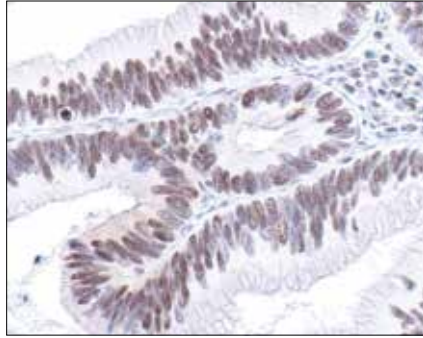


- + Calyculin A

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



Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using Phospho-(Ser/Thr) PKA Substrate Antibody.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using Phospho-(Ser/Thr) PKA Substrate Antibody.