Store at –20°C

#9606

Phospho-(Ser) 14-3-3 Binding Motif (4E2) Mouse mAb

☑ 100 µl
(40 western blots)

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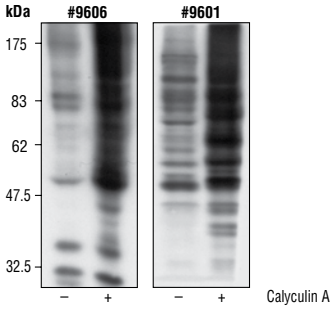
Applications	Species Cross-Reactivity*	Motif	Isotype
W, IP, E-P	All	(R/K)XX(S*)XP	Mouse IgG1**
Endogenous			

Background: The 14-3-3 proteins are a highly conserved family of proteins involved in the regulation of cell survival, apoptosis, proliferation and checkpoint control (1-5). Biological regulation by 14-3-3 is mediated through phosphorylation-dependent protein-protein interactions (6). Two different phospho-Ser-containing motifs are found within nearly all known 14-3-3 binding proteins (7). Motif 1 (Arg/Lys and Ser at positions -3 and -2, phospho-Ser at position 0, and Pro at position +2) is found in critical regulatory proteins including Bad, cdc25C, FKHRL1, PKC and c-Raf (5,7). Phospho-(Ser) 14-3-3 Binding Motif Polyclonal and (4E2) Monoclonal Antibodies provide powerful tools for the discovery and characterization of potential 14-3-3 binding proteins containing this motif and for high throughput drug discovery.

Specificity/Sensitivity: Phospho-(Ser) 14-3-3 Binding Motif (4E2) Mouse mAb binds peptides and proteins containing phospho-Ser surrounded by Pro at the +2 position and Arg/Lys at the -3 position. By ELISA, the antibody recognizes a wide range of peptides containing this phosphorylated 14-3-3 binding motif in a manner that is phospho-specific and largely independent of the surrounding amino acid sequence. The antibody weakly cross-reacts with sequences containing phospho-Thr instead of phospho-Ser in this motif, and with sequences containing phospho-Ser surrounded by Phe at the +1 position and Arg/Lys at the -3 position. No cross-reactivity is observed with corresponding nonphosphorylated sequences or with other phospho-Ser/Thr/Tyr containing motifs. Phospho-(Ser) 14-3-3 Binding Motif (4E2) Mouse mAb complements our polyclonal Phospho-(Ser) 14-3-3 Binding Motif Antibody #9601 by showing slightly different and overlapping specificity. (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.)

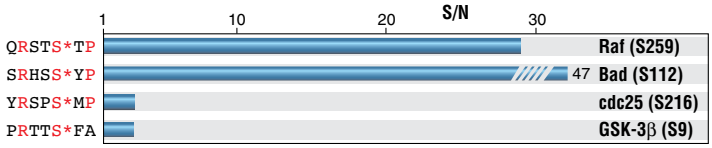


Western blot analysis of extracts from A431 cells, untreated or calyculin A-treated, using Phospho-(Ser) 14-3-3 Binding Motif (4E2) Mouse mAb (left) or Phospho-(Ser) 14-3-3 Binding Motif Antibody #9601 (right).

Source/Purification: Monoclonal antibody is produced by immunizing mice with phospho-(Ser) 14-3-3 binding motif peptides (KLH-coupled).

Background References:

(1) Aitken, A. (1995) *Trends Biochem Sci* 20, 95–7.
(2) Zha, J. et al. (1996) *Cell* 87, 619–28.
(3) Piwnica-Worms, H. (1999) *Nature* 401, 535, 537.
(4) Tzivion, G. et al. (1998) *Nature* 394, 88–92.
(5) Xing, H. et al. (2000) *EMBO J* 19, 349–58.
(6) Muslin, A.J. et al. (1996) *Cell* 84, 889–97.
(7) Yaffe, M.B. et al. (1997) *Cell* 91, 961–71.



Phospho-(Ser) 14-3-3 Binding Motif (4E2) Mouse mAb ELISA assay: Signal-to-noise ratio of phospho- versus nonphospho-14-3-3 binding motif peptides. (S denotes phosphorylated serine.)*

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

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

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

Recommended Antibody Dilutions:

Western blotting	1:4000
Immunoprecipitation	1:20
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.

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**—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.