

Phospho-Elk-1 (Ser383) (2B1) Mouse mAb

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com

Support ■ 877-678-TECH (8324)
info@cellsignal.com

Web ■ www.cellsignal.com

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

Applications W Recombinant	Species Cross-Reactivity* H, (M, R)	Molecular Wt. 47 kDa	Isotype Mouse IgG1**
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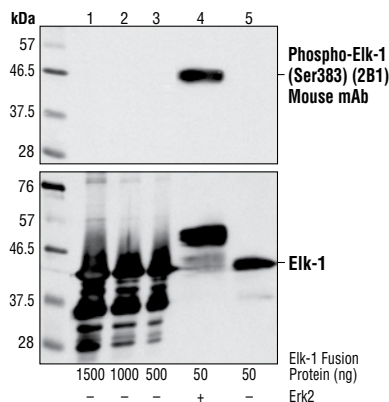
Background: The transcription factor Elk-1 is a component of the ternary complex that binds the serum response element (SRE) and mediates gene activity in response to serum and growth factors (1-3). Elk-1 is phosphorylated by MAP kinase pathways at a cluster of S/T motifs at its carboxy terminus; phosphorylation at these sites, particularly Ser383, is critical for transcriptional activation by Elk-1. Elk-1 appears to be a direct target of activated MAP kinase: (a) biochemical studies indicate that Elk-1 is a good substrate for MAP kinase; (b) the kinetics of Elk-1 phosphorylation and activation correlate with MAP kinase activity; (c) interfering mutants of MAP kinase block Elk-1 activation in vivo. Other studies have shown that Elk-1 (Ser383) is also a target of the stress-activated kinase SAPK/JNK (4,5).

Specificity/Sensitivity: Phospho-Elk-1 (Ser383) (2B1) Mouse mAb detects less than 5 ng of phosphorylated Elk-1, and will not react with up to 1 µg of nonphosphorylated Elk-1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser383 of human Elk-1.

Background References:

- (1) Marais, R. et al. (1993) *Cell* 73, 381–393.
- (2) Kortenjann, M. et al. (1994) *Mol. Cell. Biol.* 14, 4815–4824.
- (3) Hill, C.S. and Treisman, R. (1995) *Cell* 80, 199–211.
- (4) Cavignelli, M. et al. (1995) *EMBO J.* 14, 5957–5964.
- (5) Whitmarsh, A.J. et al. (1995) *Science* 269, 403–407.



Western blot analysis of Elk-1 fusion protein expressed from *E. coli* with or without phosphorylation with purified Erk2 enzyme, using Phospho-Elk-1 (Ser383) (2B1) Mouse mAb (upper) or Elk-1 Antibody #9182 (lower).

Entrez-Gene ID #2002
UniProt Acc. #P19419

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

Recommended Antibody Dilutions:

Western blotting 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.

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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.