

# Elk-1 Control Proteins

✓ Controls for 10 western blots

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

Product Includes	Product #	Quantity
Elk-1 Control Protein (Nonphosphorylated)	29093	150 ul
Elk-1 Control Protein (Phosphorylated)	47809	150 ul

**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).

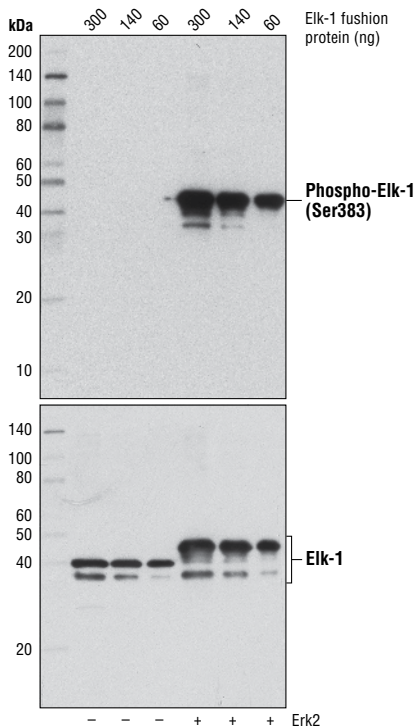
**Description:** *Nonphosphorylated Elk-1 Control Proteins:* Bacterially expressed Elk1 fusion protein serves as a negative control. Supplied in SDS Sample Buffer.

*Phosphorylated Elk-1 Control Proteins:* Bacterially expressed Elk1 fusion protein phosphorylated by the Erk2 enzyme serves as a positive control. Supplied in SDS Sample Buffer.

**Directions for Use:** Boil for 3 minutes prior to use. Load 15 µl of phosphorylated and nonphosphorylated Elk1 Control Proteins.

**Background References:**

- (1) Marais, R. et al. (1993) *Cell* 73, 381–393.
- (2) Kortjenann, M. et al. (1994) *Mol. Cell. Biol.* 14, 4815–4824.
- (3) Hill, C.S. and Treisman, R. (1995) *Cell* 80, 199–211.
- (4) Cavigelli, 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 by purified Erk2 enzyme, using Phospho-Elk-1 (Ser383) Antibody #9186 (upper) or control Elk-1 Antibody #9182 (lower).

**Storage:** Supplied in SDS Sample Buffer: 62.5 mM Tris-HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v phenol red or bromophenol blue. Store at -20°C or at -80°C for long term storage.

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