

#9193 Store at -20°C

CREB Control Cell Extracts



✓ 100 µl
(10 western blots)

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

Product Includes	Product #	Quantity
CREB Control Cell Extracts (SK-N-MC untreated)	64854	100 ul
CREB Control Cell Extracts (SK-N-MC +IBMX/Forskolin)	73884	100 ul

Description: *CREB Control Cell Extracts (SK-N-MC untreated):* Total cell extracts from SK-N-MC cells serve as a negative control. Supplied in SDS sample buffer.

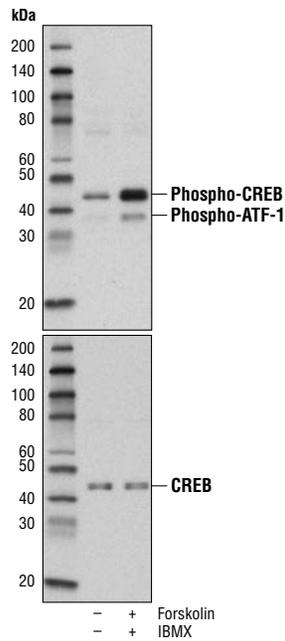
CREB Control Cell Extracts (SK-N-MC +IBMX/Forskolin): Total cell extracts from SK-N-MC cells treated with 30 µM Forskolin #3828 and 0.5 mM IBMX for 30 minutes serve as a positive control. Supplied in SDS sample buffer.

Background: CREB is a bZIP transcription factor that activates target genes through cAMP response elements. CREB is able to mediate signals from numerous physiological stimuli, resulting in regulation of a broad array of cellular responses. While CREB is expressed in numerous tissues, it plays a large regulatory role in the nervous system. CREB is believed to play a key role in promoting neuronal survival, precursor proliferation, neurite outgrowth, and neuronal differentiation in certain neuronal populations (1-3). Additionally, CREB signaling is involved in learning and memory in several organisms (4-6). CREB is able to selectively activate numerous downstream genes through interactions with different dimerization partners. CREB is activated by phosphorylation at Ser133 by various signaling pathways including Erk, Ca²⁺, and stress signaling. Some of the kinases involved in phosphorylating CREB at Ser133 are p90RSK, MSK, CaMKIV, and MAPKAPK-2 (7-9).

Directions for Use: Boil for 3 minutes prior to use. Load 10 µl of phosphorylated and nonphosphorylated CREB Control Cell Extracts per lane.

Background References:

- (1) Lonze, B.E. et al. (2002) *Neuron* 34, 371-85.
- (2) Lee, M.M. et al. (1999) *J Neurosci Res* 55, 702-12.
- (3) Redmond, L. et al. (2002) *Neuron* 34, 999-1010.
- (4) Dash, P.K. et al. (1990) *Nature* 345, 718-21.
- (5) Yin, J.C. et al. (1994) *Cell* 79, 49-58.
- (6) Guzowski, J.F. and McGaugh, J.L. (1997) *Proc Natl Acad Sci USA* 94, 2693-8.
- (7) Xing, J. et al. (1998) *Mol Cell Biol* 18, 1946-55.
- (8) Ribar, T.J. et al. (2000) *J Neurosci* 20, RC107.
- (9) Tan, Y. et al. (1996) *EMBO J* 15, 4629-42.



Western blot analysis of extracts from SK-N-MC cells, untreated (-) or treated with Forskolin #3828 (30 µM) and IBMX (0.5 mM) for 30 min (+), using Phospho-CREB (Ser133) (87G3) Rabbit mAb #9198 (upper) and CREB (48H2) Rabbit mAb #9197 (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 bromophenol blue or phenol red. Store at -20°C, or at -80°C for long-term storage.

For product specific protocols and a complete listing of recommended companion products, please see the product web page at www.cellsignal.com.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry IC—Immunocytochemistry IF—Immunofluorescence F—Flow cytometry E—ELISA D—DELFIATM
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken X—Xenopus Z—zebra fish B—bovine All—all species expected
Species enclosed in parentheses are predicted to react based on 100% sequence homology.