

CREB (86B10) Mouse mAb

✓ 100 µl
(10 western blots)

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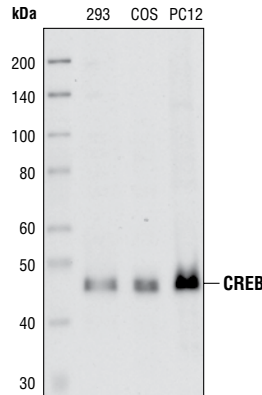
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IF-F, IF-IC, F Endogenous	H, M, R, Mk	43 kDa	Mouse IgG1**

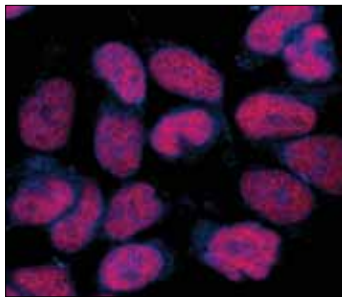
Background: CREB is a bZIP transcription factor that activates target genes through cAMP response elements. CREB is able to mediate signals from numerous physiological stimuli, resulting in regulation of a broad array of cellular responses. While CREB is expressed in numerous tissues, it plays a large 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).

Specificity/Sensitivity: CREB (86B10) Mouse mAb detects endogenous levels of total CREB protein.

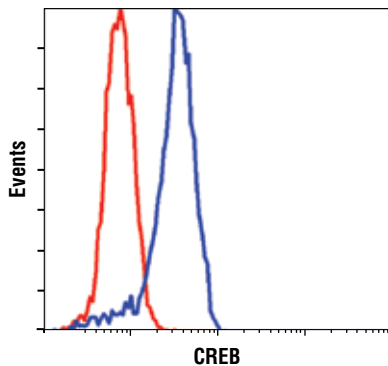
Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human CREB protein.



Western blot analysis of extracts from 293, COS and PC12 cells, using CREB (86B10) Mouse mAb.



Confocal microscopic images of SK-N-MC cells showing nuclear stain with CREB (86B10) Mouse mAb (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Flow cytometric analysis of NIH/3T3 cells, using CREB (86B10) Mouse mAb antibody (blue) compared to a nonspecific negative control antibody (red).

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Entrez-Gene ID #1385
Swiss-Prot Acc. #P16220

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	1:1000
Immunofluorescence (Frozen)	1:200
Immunofluorescence (IF-IC)	1:200
Flow Cytometry	1:100

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.

Background References:

- (1) Lonze, B.E. et al. (2002) *Neuron* 34, 371-385.
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- (4) Dash, P.K. et al. (1990) *Nature* 345, 718-721.
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- (6) Guzowski, J.F. and McLaugh, J.L. (1997) *Proc. Nat. Acad. Sci. USA* 94, 2693-2698.
- (7) Xing, J. et al. (1998) *Mol. Cell. Biol.* 18, 1946-1955.
- (8) Ribar, T.J. et al. (2000) *J. Neurosci.* 20, RC107.
- (9) Tan, Y. et al. (1996) *EMBO J.* 15, 4629-4642.

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