

Store at -20C  
#9196

## Phospho-CREB (Ser133) (1B6) Mouse mAb



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

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	43	Mouse IgG1	#P16220	1385

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Phospho-CREB (Ser133) (1B6) Mouse mAb detects endogenous levels of CREB only when phosphorylated at serine 133. This antibody also detects the phosphorylated form of the CREB-related protein, ATF-1.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser133 of human CREB.	
<b>Background</b>	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, Ca <sup>2+</sup> , and stress signaling. Some of the kinases involved in phosphorylating CREB at Ser133 are p90RSK, MSK, CaMKIV, and MAPKAPK-2 (7-9).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Lonze, B.E. et al. (2002) <i>Neuron</i> 34, 371-85.</li> <li>2. Lee, M.M. et al. (1999) <i>J Neurosci Res</i> 55, 702-12.</li> <li>3. Redmond, L. et al. (2002) <i>Neuron</i> 34, 999-1010.</li> <li>4. Dash, P.K. et al. (1990) <i>Nature</i> 345, 718-21.</li> <li>5. Yin, J.C. et al. (1994) <i>Cell</i> 79, 49-58.</li> <li>6. Guzowski, J.F. and McGaugh, J.L. (1997) <i>Proc Natl Acad Sci USA</i> 94, 2693-8.</li> <li>7. Xing, J. et al. (1998) <i>Mol Cell Biol</i> 18, 1946-55.</li> <li>8. Ribar, T.J. et al. (2000) <i>J Neurosci</i> 20, RC107.</li> <li>9. Tan, Y. et al. (1996) <i>EMBO J</i> 15, 4629-42.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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