UniProt ID:

#P16220

**Entrez-Gene Id:** 

1385

## PhosphoPlus<sup>®</sup> CREB (Ser133) Antibody **Cell Signaling** Store at -20C J. Duet TECHNOLOGY® Orders: 877-616-CELL (2355) orders@cellsignal.com 12 877-678-TECH (8324) Support: Web: info@cellsignal.com cellsignal.com 3 Trask Lane | Danvers | Massachusetts | 01923 | USA For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-CREB (Ser133) (87G3) Rabbit mAb	9198	100 µl	43 kDa	Rabbit IgG
CREB (48H2) Rabbit mAb	9197	100 µl	43 kDa	Rabbit IgG

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description	PhosphoPlus <sup>®</sup> Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.
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.
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, 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).
Background References	1. Lonze, B.E. et al. (2002) <i>Neuron</i> 34, 371-85. 2. Lee, M.M. et al. (1999) <i>J Neurosci Res</i> 55, 702-12. 3. Redmond, L. et al. (2002) <i>Neuron</i> 34, 999-1010. 4. Dash, P.K. et al. (1990) <i>Nature</i> 345, 718-21. 5. Yin, J.C. et al. (1994) <i>Cell</i> 79, 49-58. 6. Guzowski, J.F. and McGaugh, J.L. (1997) <i>Proc Natl Acad Sci USA</i> 94, 2693-8. 7. Xing, J. et al. (1998) <i>Mol Cell Biol</i> 18, 1946-55. 8. Ribar, T.J. et al. (2000) <i>J Neurosci</i> 20, RC107. 9. Tan, Y. et al. (1996) <i>EMBO J</i> 15, 4629-42.
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