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Phospho-CREB (Ser133) (87G3) Rabbit mAb (Alexa Fluor® 647 Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F, IF-IC, FC-FP	H M R	Endogenous	Rabbit IgG	#P16220	1385
Product Usage Information	Application				Dilution
	Immunofluorescence (Frozen)				1:50 - 1:200
	Immunofluorescence (Immunocytochemistry)				1:100 - 1:400
	Flow Cytometry (Fixed/Permeabilized)				1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.				
Specificity/Sensitivity	Phospho-CREB (Ser133) (87G3) Rabbit mAb (Alexa Fluor® 647 Conjugate) recognizes endogenous levels of CREB only when phosphorylated at Ser133. The antibody also recognizes the phosphorylated form of the CREB-related protein, ATF-1.				
Species predicted to react based on 100% sequence homology	Zebrafish				
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser133 of human CREB protein.				
Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-house for direct flow cytometry analysis in human cells and immunofluorescence analysis in human cells and rat tissue. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-CREB (Ser133) (87G3) Rabbit mAb #9198.				
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 ²⁺ , and stress signaling. Some of the kinases involved in phosphorylating CREB at Ser133 are p90RSK, MSK, CaMKIV, and MAPKAPK-2 (7-9).				
Background References	<ol style="list-style-type: none"> 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. 				

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	IF-F: Immunofluorescence (Frozen) IF-IC: Immunofluorescence (Immunocytochemistry) FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: Human M: Mouse R: Rat
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