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Anti-CREB (Ser133) Antibody

Our Anti-CREB (Ser133) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutions is p
Catalog # AN1348

Product Information

Application	WB, IHC
Primary Accession	P15337
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	35081

Additional Information

Gene ID	81646
Other Names	Active transcription factor CREB antibody, cAMP response element binding protein 1 antibody, cAMP response element binding protein antibody, cAMP responsive element binding protein 1 antibody, cAMP-responsive element-binding protein 1 antibody, CREB antibody, CREB-1 antibody, CREB1 antibody, CREB1_HUMAN antibody, Cyclic AMP-responsive element-binding protein 1 antibody, MGC9284 antibody, OTTHUMP00000163864 antibody, OTTHUMP00000163865 antibody, OTTHUMP00000206660 antibody, OTTHUMP00000206662 antibody, , TTHUMP00000206667 antibody, Transactivator protein antibody
Target/Specificity	It is well known that the control of gene expression involves activation of protein kinase cascades that regulate transcription factors within the nucleus (Karin and Hunter, 1995). The cyclic AMP response element binding protein (CREB) is one of the best characterized stimulus-induced transcription factors (Montminy, 1997). This transcription factor is a component of intracellular signaling events that regulate a wide range of biological functions, from spermatogenesis to circadian rhythms and memory (Shaywitz and Greenberg, 1999; Silva et al., 1998). A variety of protein kinases including protein kinase A (PKA), mitogen-activated protein kinases (MAPKs), and Ca2+/calmodulin-dependent protein kinases (CaMKs) phosphorylate CREB at serine 133 (Ser-133), and phosphorylation of Ser-133 are required for CREB-mediated transcription (Johannessen et al., 2004; Kornhauser et al., 2002).
Dilution	WB~~1:1000 IHC~~1:100~500
Format	Antigen Affinity Purified from Pooled Serum
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-CREB (Ser133) Antibody is for research use only and not for use in

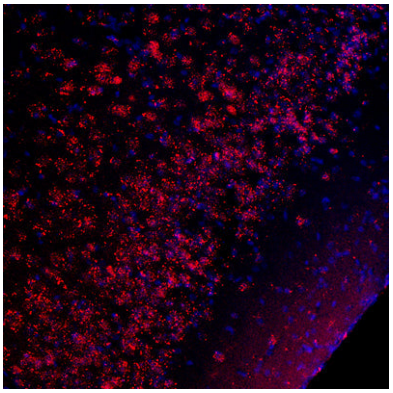
diagnostic or therapeutic procedures.

Shipping Blue Ice

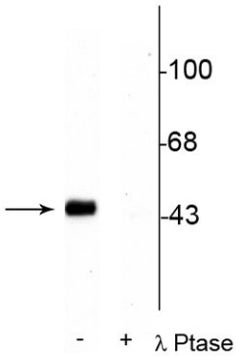
Background

It is well known that the control of gene expression involves activation of protein kinase cascades that regulate transcription factors within the nucleus (Karin and Hunter, 1995). The cyclic AMP response element binding protein (CREB) is one of the best characterized stimulus-induced transcription factors (Montminy, 1997). This transcription factor is a component of intracellular signaling events that regulate a wide range of biological functions, from spermatogenesis to circadian rhythms and memory (Shaywitz and Greenberg, 1999; Silva et al., 1998). A variety of protein kinases including protein kinase A (PKA), mitogen-activated protein kinases (MAPKs), and Ca2+/calmodulin-dependent protein kinases (CaMKs) phosphorylate CREB at serine 133 (Ser-133), and phosphorylation of Ser-133 are required for CREB-mediated transcription (Johannessen et al., 2004; Kornhauser et al., 2002).

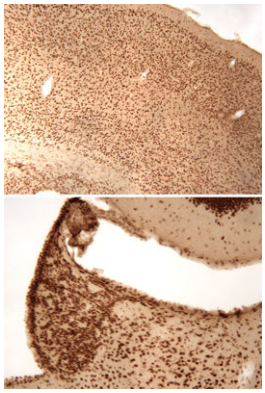
Images



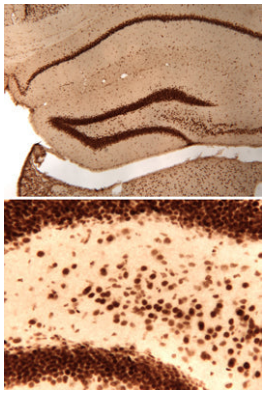
Immunolabeling of a section of mouse piriform cortex labeled with Anti-Phospho-Ser133 CREB (cat. AN1348, red, 1:1000). Cell nuclei are visualized with DAPI DNA stain (blue).



Western blot of rat hippocampal lysate stimulated with forskolin showing specific immunolabeling of the ~45 kDa CREB phosphorylated at Ser133 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by lysate treatment with lambda phosphatase (λ-Ptase, 800 units/1mg protein for 30 min).



Immunolabeling of mouse cerebral cortex (top) and habenula (bottom) brain sections labeled with anti-phospho-ser133 CREB (cat. AN1348, DAB, 1:100). These images were kindly provided by Dr. Anton Reiner, Univ. of Tennessee Health Science Center (Memphis, TN).



Immunolabeling of mouse hippocampal section labeled with anti-phospho-ser133 CREB (cat. AN1348, DAB, 1:100, top). The image on the bottom is a magnification of the dentate gyrus section of the hippocampus. These images were kindly provided by Dr. Anton Reiner, Univ. of Tennessee Health Science Center (Memphis, TN).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.