

Anti-CREB (Ser133) Antibody

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

Specification**Anti-CREB (Ser133) Antibody - Product Information**

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

Anti-CREB (Ser133) Antibody - 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

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.

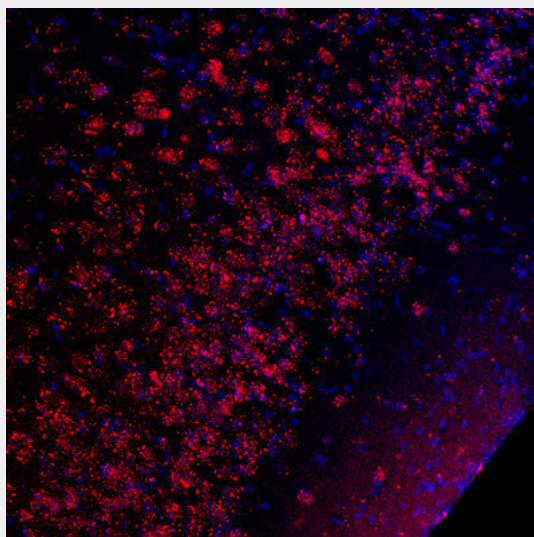
Shipping
Blue Ice

Anti-CREB (Ser133) Antibody - Protocols

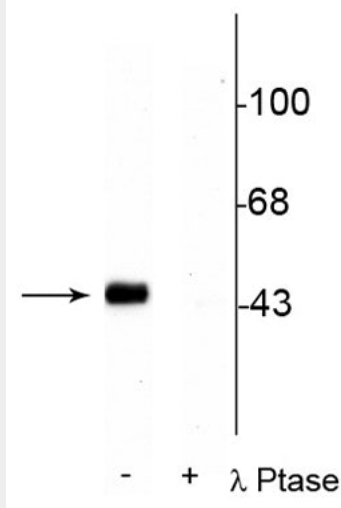
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

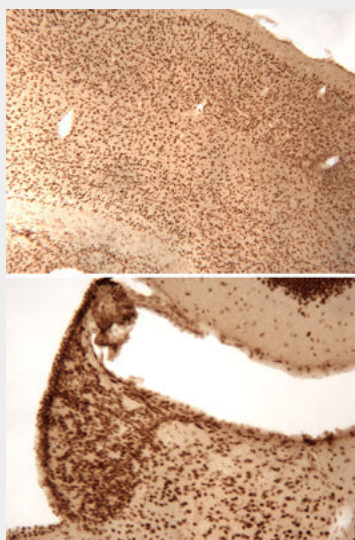
Anti-CREB (Ser133) Antibody - Images



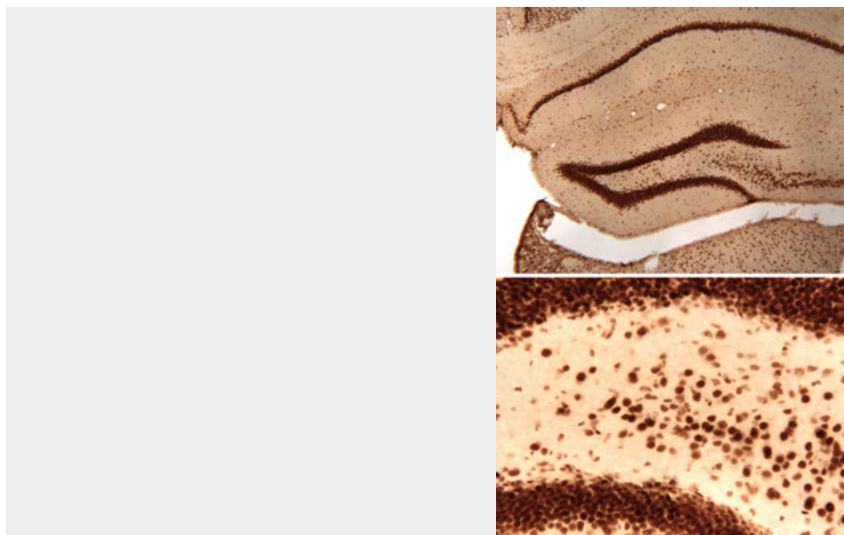
Immunolabeling of a section of mouse piriform cortex labeled with Anti-Phospho-Ser133 CREB (cat. p1010-133, red, 1:1000). Cell nuclei are visualized with DAPI DNA stain (blue).



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. p1010-133, 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. p1010-133, 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).

Anti-CREB (Ser133) Antibody - 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 Ca^{2+} /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).