10320 Camino Santa Fe, Suite G
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Anti-CREB (Ser-133), Phosphospecific Antibody

Catalog # AN1724

Specification

Anti-CREB (Ser-133), Phosphospecific Antibody - Product Information

Application	**WB**
Primary Accession	P16220
Reactivity	**Bovine, Chicken**
Host	**Mouse**
Clonality	**Mouse Monoclonal**
Isotype	**IgG1**
Calculated MW	**35136**

Anti-CREB (Ser-133), Phosphospecific Antibody - Additional Information

Gene ID	**1385**

Other Names
Cyclic AMP, CREB

Target/Specificity
CREB (cyclic AMP response element-binding protein) is a stimulus-induced transcription factor that plays pivotal roles in cell survival and proliferation. CREB is expressed in various tissues, and has important gene-regulating roles in the nervous system. The transactivation function of CREB is primarily regulated through Ser-133 phosphorylation by cAMP-dependent protein kinase A (PKA) and related kinases. CREB is phosphorylated at other sites in response to calcium influx and DNA damage. The DNA-damage responsive nuclear kinase, HIPK2, can phosphorylate Ser-271 but not Ser-133 in CREB, and this phosphorylation activates CREB transactivation function. Mutation of Ser-271 to Glu-271 potentiates the CREB transactivation function. Thus, phosphorylation of Ser-271 may be the mode of activation for CREB-dependent transcription in response to genotoxic stress.

Format
Protein A Purified

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 (Ser-133), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-CREB (Ser-133), Phosphospecific Antibody - Protocols

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

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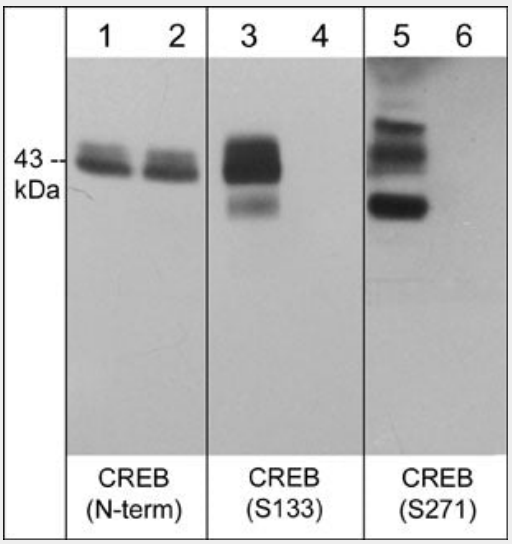
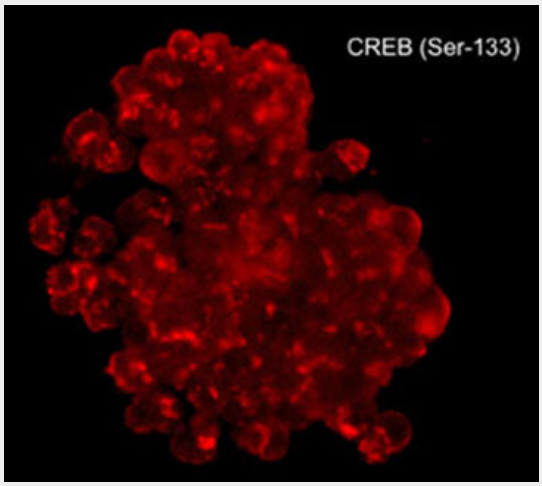
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CREB (Ser-133), Phosphospecific Antibody - Images



Western blot analysis of human A431 cells treated with calyculin A (100 nM) for 30 min. (lanes 1, 3 & 5) then the blots were treated with lambda phosphatase (lanes 2, 4 & 6). The blots were probed with anti-CREB (N-terminal region) (lanes 1 & 2), anti-CREB (Ser-133) (lanes 3 & 4), and anti-CREB (Ser-271) (lanes 5 & 6).



Immunocytochemical labeling of phosphorylated CREB in calyculin A-treated A431 cells. The cells were fixed in paraformaldehyde and permeabilized using NP-40 before labeling with mouse monoclonal CREB (Ser-133). The antibody was detected using goat anti-mouse DyLight® 594.

Anti-CREB (Ser-133), Phosphospecific Antibody - Background

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important gene-regulating roles in the nervous system. The transactivation function of CREB is primarily regulated through Ser-133 phosphorylation by cAMP-dependent protein kinase A (PKA) and related kinases. CREB is phosphorylated at other sites in response to calcium influx and DNA damage. The DNA-damage responsive nuclear kinase, HIPK2, can phosphorylate Ser-271 but not Ser-133 in CREB, and this phosphorylation activates CREB transactivation function. Mutation of Ser-271 to Glu-271 potentiates the CREB transactivation function. Thus, phosphorylation of Ser-271 may be the mode of activation for CREB-dependent transcription in response to genotoxic stress.