

**Anti-CREB (Ser-133), Phosphospecific Antibody**  
Catalog # AN1724**Specification****Anti-CREB (Ser-133), Phosphospecific Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P16220</a>
Reactivity	Bovine, Chicken
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Calculated MW	35136

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

Gene ID	1385
<b>Other Names</b>	
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**

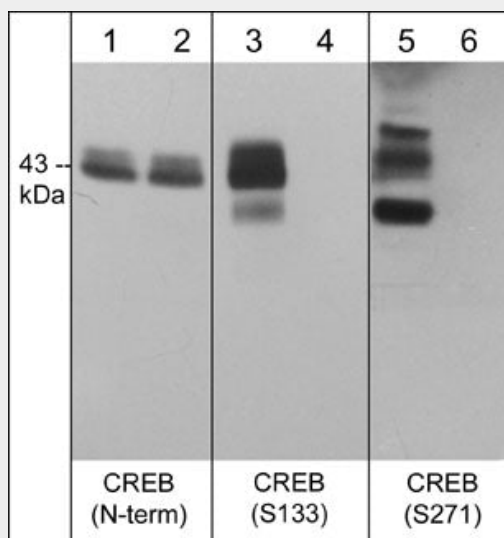
Blue Ice

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

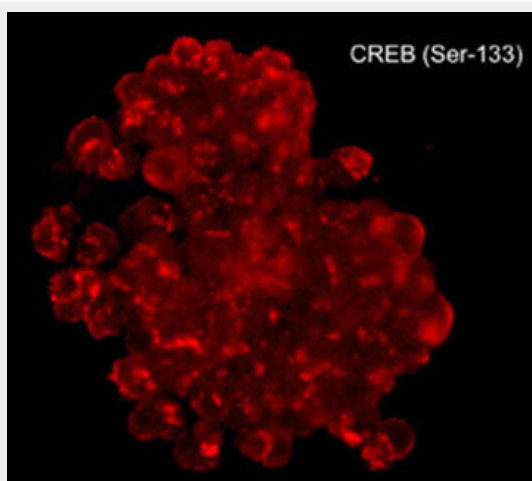
Provided below are standard protocols that you may find useful for product applications.

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