

Anti-Phospho-Ser133 CREB Antibody

Product Data Sheet · P/N 74084 Rev 01 · Reissued 2026-09-19 (layout only)

Product code	Pack size
P40002-100	100 µL
Host Species	Rabbit (Polyclonal)
Mr (kDa)	45

Description

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 (Ser133), and phosphorylation of Ser133 is required for CREB-mediated transcription (Johannessen et al., 2004; Kornhauser et al., 2002).

Immunogen

Phosphopeptide corresponding to amino acid residues surrounding the phospho- Ser133 of rat CREB.

Species Reactivity

The antibody has been directly tested for reactivity in Western blots with rat tissue.

It is anticipated that the antibody will also react with bovine, canine, chicken, human, mouse, non- human primate, rat, sheep, Xenopus and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.

Physical State

Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

Purification Method

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Recommended Antibody Dilutions

WB: 1:1000

IHC: 1:100

Storage/Stability

Stable at -20 °C for at least 1 year.

For long term storage -20 °C is recommended

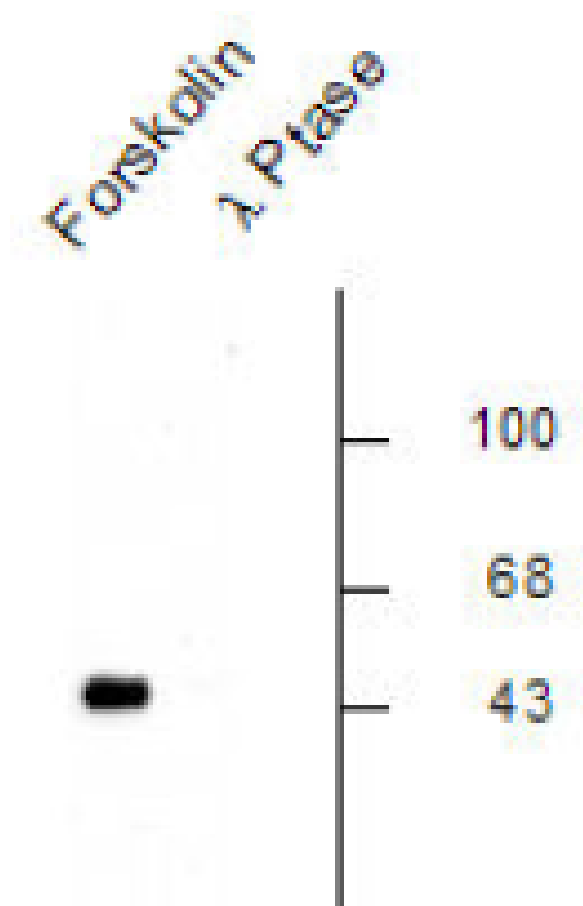
Shipping Conditions

Domestic: Blue Ice

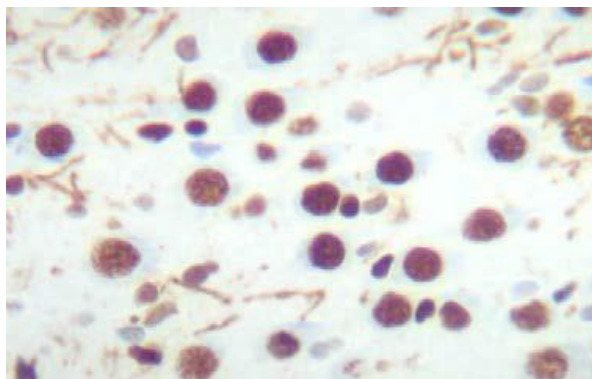
International: Blue Ice or Dry Ice

References

- 1) Johannessen M et al. (2004) Cellular Signalling 16:1211-1227.
- 2) Karin M et al. (1995) Curr Biol 5:747-757.
- 3) Kornhauser JM et al. (2002) Neuron 34:221-233.
- 4) Montminy M (1997) Annu Rev Biochem 66:807-822.
- 5) Shaywitz AJ (1999) Annu Rev Biochem 68:821-861.
- 6) Silva AJ et al. (1998) Annu Rev Neurosci 21:127-148.



Immunostaining Cultured rat hippocampal slices showing nuclear labeling of CREB phosphorylated at Ser133 in brown.



Western Blot Forskolin stimulated rat hippocampal lysate showing specific immunolabeling of the ~45k CREB phosphorylated at Ser133. Immunolabeling is completely eliminated by treatment with λ - Phosphatase in lane 2.

For research use or further manufacturing only. Not for use in diagnostic procedures, or for human or animal consumption.