

Product Information

CREB1 (1-280), GST-tagged, rat recombinant, expressed in *E. coli* cells

Catalog Number **SRP5177**
Storage Temperature -70°C

Synonym: Creb

Product Description

CREB1 is a member of the cAMP responsive element binding protein family of transcription factors that are critical mediators of gene expression in response to extracellular signals and are essential regulators of adaptive behavior and long-term memory formation.¹ Activation of CREB1 by protein kinase A-mediated phosphorylation has been implicated in the survival of mammalian cells. Mice lacking CREB in the central nervous system during development show extensive apoptosis of postmitotic neurons.² CREB binds as homo and heterodimers to promoters containing CRE and activator protein 1 (AP-1) sites to alter target-gene expression).

Recombinant rat CREB1 (1-280) was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_031017. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~59 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

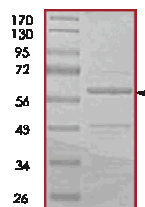
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Valverde, O. et al., Modulation of anxiety-like behavior and morphine dependence in CREB-deficient mice. *Neuropsychopharmacology*, **29(6)**, 1122-33 (2004).
2. Mantamadiotis, T. et al., Disruption of CREB function in brain leads to neurodegeneration. *Nat. Genet.*, **31(1)**, 47-54 (2002).

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