

## CREB1 Protein

Recombinant protein expressed in E.coli cells

Catalog # C49-55G

Lot # P189-1

### Product Description

Recombinant rat CREB1 (1-280) was expressed in E.coli cells using an N-terminal GST tag. The gene accession number is [NM\\_031017](#).

### Gene Aliases

Creb

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

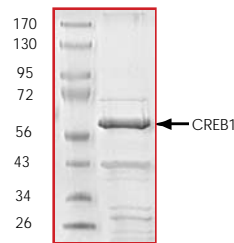
### Scientific Background

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).

### References

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

### Purity



The purity was determined to be **>70%** by densitometry.  
Approx. MW **59kDa**.

### Upstream Active Kinases

|              |               |
|--------------|---------------|
| PKA $\alpha$ | Cat # P51-10G |
| PKA $\beta$  | Cat # P52-10G |
| PKA $\gamma$ | Cat # P53-10G |

## CREB1 Protein

Recombinant protein expressed in E.coli cells

Catalog Number C49-55G

Specific Lot Number P189-1

|                    |  |
|--------------------|--|
| Purity             | >70%   |
| Concentration      | 0.2 $\mu\text{g}/\mu\text{l}$  |
| Stability          | 1yr At $-70^{\circ}\text{C}$ from date of shipment   |
| Storage & Shipping | Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice. |

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: [orders@signalchem.com](mailto:orders@signalchem.com)  
[www.signalchem.com](http://www.signalchem.com)

**FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.**