

## Product Information

### PRKAR1B, His-tagged, human recombinant, expressed in Sf9 cells

Catalog Number **SRP5120**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonym: PRKAR1

#### Product Description

PRKAR1B is the type I- $\beta$  regulatory subunit of cyclic AMP-dependent protein kinase A (PKA), which is an essential enzyme in the cAMP signaling pathway. PKA holoenzyme is composed of 2 regulatory and 2 catalytic subunits, and dissociates from the regulatory subunits upon binding of cAMP. PKA controls many biochemical events in the cell including regulation of metabolism, ion transport, and gene transcription. PKA undergoes a dramatic conformational change upon complex formation with the catalytic subunit.<sup>1</sup> PRKAR1B subunits can dimerize through an N-terminal motif and this dimerization is necessary for binding to PKA anchoring proteins (AKAPs) and targeting of PKA to its site of action.

Recombinant, full-length, human PRKAR1B was expressed in Sf9 insect cells using a C-terminal His tag. The gene accession number is NM\_002735. Recombinant protein stored in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass: ~52 kDa

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

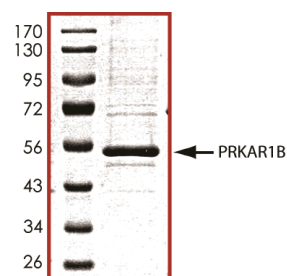
#### Precautions and Disclaimer

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  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

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



#### References

1. Gullingsrud, J. et al., Dynamic binding of PKA regulatory subunit RI alpha. *Structure*, Jan. PMID 16407073 (2006).
2. Carlson, C.R. et al., A kinase anchoring protein (AKAP) interaction and dimerization of the RIalpha and RIIbeta regulatory subunits of protein kinase A *in vivo* by the yeast two hybrid system. *J. Mol. Biol.*, **327**(3), 609-18 (2003).

RC,MAM 11/11-1