

## Product Information

### PRKAR1A, His-tagged, human recombinant, expressed in Sf9 cells

Catalog Number **SRP5119**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonyms: CAR, CNC, CNC1, DKFZp779L0468, MGC17251, PKR1, PPNAD1, PRKAR1, TSE1

#### Product Description

PRKAR1A or the cAMP-dependent protein kinase regulatory subunit type I alpha, is part of the type 1 PKA holoenzyme. PRKAR1A is found to be a tissue-specific extinguisher that down-regulates the expression of seven liver genes in hepatoma x fibroblast hybrids.<sup>1</sup> Mutations in the PRKAR1A gene cause Carney complex (CNC) and PRKAR1A can fuse to the RET proto-oncogene by gene rearrangement and form the thyroid tumor-specific chimeric oncogene known as PTC2.<sup>2</sup> A nonconventional nuclear localization sequence (NLS) has been found for this protein, which suggests a role in DNA replication via the protein serving as a nuclear transport protein for the second subunit of the Replication Factor C (RFC40).

Recombinant, full-length, human PRKAR1A Protein was expressed in Sf9 insect cells using a C-terminal His tag. The gene accession number is NM\_002734. 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: ~51 kDa

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

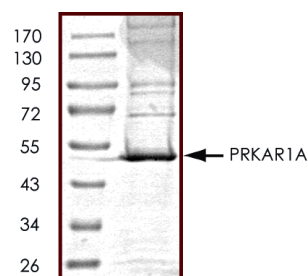
#### Precautions and Disclaimer

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. Bossis, I. et al., PRKAR1A, normal and abnormal functions. *Endocrinology*, **145**, 5452-5458 (2004).
2. Casey, M. et al., Mutations in the protein kinase A R1-alpha regulatory subunit cause familial cardiac myxomas and Carney complex. *J. Clin. Invest.*, **106**, R31-R38 (2000).

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