

## PRKAR1A Protein, Human (HEK293, His)

Cat. No.:	HY-P71103
Synonyms:	Tissue-specific extinguisher 1; TSE1
Species:	Human
Source:	HEK293
Accession:	P10644 (E2-V381)
Gene ID:	5573
Molecular Weight:	Approximately 50.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> ESGSTAASEE   ARSLRECELY   VQKHNIQALL   KDSIVQLCTA RPERPMAFLR   EYFERLEKEE   AKQIQNLQKA   GTRTDSREDE ISPPPPNPVV   KGRRRRGAIS   AEVYTEEDAA   SYVRKVIPKD YKTMAALAKA   IEKNVLFSHL   DDNERSDIFD   AMFSVSFIAG ETVIQQGDEG   DNFYVIDQGE   TDVYVNEWA    TSVGEGGSFG ELALIYGTPR   AATVKAKTNV   KLWGIDRDSY   RRI LMGSTLR KRKMYEEFLS   KVSILES LDK  WERLTVADAL   EPVQFEDGQK IVVQGEPEGDE  FFIILEGSAA   VLQRRSENEE   FVEVGRLGPS DYFGEIALLM   NRPRAAATVVA  RGPLKCVKLD   RPRFERVLGP CSDILKRNIQ   QYNSFVSLSV </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	PRKAR1A Protein, a regulatory subunit of cAMP-dependent protein kinases, plays a crucial role in cAMP signaling within cells. The inactive holoenzyme consists of two regulatory chains and two catalytic chains, which are released upon
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activation by cAMP, resulting in the formation of two active catalytic monomers and a regulatory dimer. PRKAR1A Protein interacts with PRKACA and PRKACB, and this interaction has been shown to influence various cellular processes. Additionally, PRKAR1A Protein engages with RFC2, potentially contributing to cell survival. It also interacts with AKAP4, RARA (in the presence of cAMP or FSH, regulating RARA transcriptional activity), phosphorylated PJA2, CBFA2T3 (By similarity), PRKX (regulating this cAMP-dependent protein kinase), C2orf88/smAKAP (possibly targeting PRKAR1A to the plasma membrane), and AICDA, further highlighting its involvement in diverse molecular interactions and pathways.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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