

## Product datasheet for TP310332

### PRKACA (NM\_002730) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human protein kinase, cAMP-dependent, catalytic, alpha (PRKACA), transcript variant 1, 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC210332 representing NM_002730 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MGNAAAARKGSEQESVKEFLAKAKEDFLKKWESPAQNTAHLQFERIKTLGTGSFGRVMLVKHKETGNH  
Y

AMKILDKQKVWLKQIEHTLNEKRILQAVNFPFLVKLEFSFKDNSNLYMVMMEYVPGGEMFSLRRIGRFS  
EPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDQQGYIQVTDGFGAKRVKGRTWTLCGTPEYLAPEI  
ILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLLQVDLTK  
RFGNLKNGVNDIKNHKWFATTDWIAIYQRKVEAPFIPKFKGPGDTSNFDDYEEEEIRVSINEKCGKEFSE  
F

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-Myc/DDK
Predicted MW:	40.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP\\_002721](#)

Locus ID: 5566

UniProt ID: [P17612](#)

RefSeq Size: 2689

Cytogenetics: 19p13.12

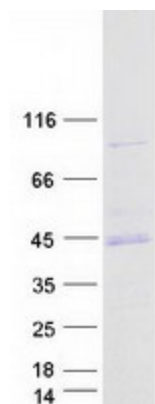
RefSeq ORF: 1053

Synonyms: CAFD1; PKACA; PPNAD4

**Summary:** This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms. [provided by RefSeq, Jan 2015]

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Apoptosis, Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Hedgehog signaling pathway, Insulin signaling pathway, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Prion diseases, Progesterone-mediated oocyte maturation, Taste transduction, Vascular smooth muscle contraction, Vibrio cholerae infection, Wnt signaling pathway

**Product images:**

Coomassie blue staining of purified PRKACA protein (Cat# TP310332). The protein was produced from HEK293T cells transfected with PRKACA cDNA clone (Cat# [RC210332]) using MegaTran 2.0 (Cat# [TT210002]).