

## Product datasheet for TP310332M

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

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human protein kinase, cAMP-dependent, catalytic, alpha (PRKACA), transcript variant 1, 100 µg
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293T
<b>Expression cDNA Clone or AA Sequence:</b>	>RC210332 representing NM_002730 Red=Cloning site Green=Tags(s)
	<p>MGNAAAANKGSEQESVKEFLAKAKEDFLKKWESPAQNTAHLDQFERIKTLGTGSFGRVMLVKHKETGNHY AMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVKLEFSFKDNSNLYMVMMEYVPGGEMFSLRIGRFS EPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDQQGYIQVTDGFAKRVKGRWTLCGTPEYLAPEI ILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFPESHSSDLKDLLRNLLQVDLTK RFGNLLKNGVNDIKNHKWFATTDWIAIYQRKVEAPFIPKFKGPGDTSNFDDYEEEEIRVSINEKCGKEFSE F</p> <p>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
<b>Tag:</b>	C-Myc/DDK
<b>Predicted MW:</b>	40.4 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<u><a href="#">NP_002721</a></u>



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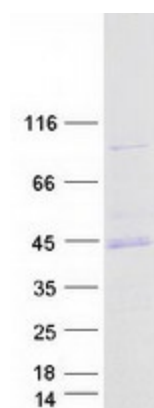
Locus ID:	5566
UniProt ID:	<a href="#">P17612</a> , <a href="#">A0A024R7J0</a>
RefSeq Size:	2689
Cytogenetics:	19p13.12
RefSeq ORF:	1053
Synonyms:	CAFD1; PKACA; PPNAD4

**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]).