

## Product datasheet for **AP06667PU-N**

### PKA R2 (PRKAR2A) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 50-100 of Human PKA II $\alpha$ reg.
Specificity:	This antibody detects endogenous levels of PKA II $\alpha$ reg protein. (region surrounding Pro68)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 45 kDa
Gene Name:	protein kinase cAMP-dependent type II regulatory subunit alpha
Database Link:	<a href="#">Entrez Gene 5576 Human P13861</a>



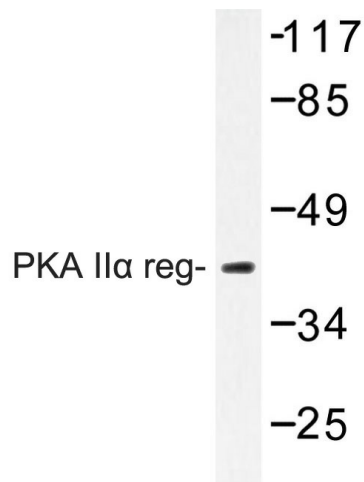
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**Background:**

The second messenger cyclic AMP (cAMP) mediates diverse cellular responses to external signals such as proliferation, ion transport, regulation of metabolism and gene transcription by activation of the cAMP-dependent protein kinase (cAPK or PKA). Activation of PKA occurs when cAMP binds to the two regulatory subunits of the tetrameric PKA holoenzyme resulting in release of active catalytic subunits. Three catalytic (C) subunits have been identified, designated C $\alpha$ , C $\beta$  and C $\gamma$ , that each represent specific gene products. C $\alpha$  and C $\beta$  are closely related (93% amino acid sequence similarity), where as C $\gamma$  displays 83% and 79% similarity to C $\alpha$  and C $\beta$ , respectively. Activation of transcription upon elevation of cAMP levels results from translocation of PKA to the nucleus where it phosphorylates the transcription factor cAMP response element binding protein (CREB) on serine 133 which in turn leads to TFIIB binding to TATA-box-binding protein TBP1, thus linking phospho-CREB to the pol II transcription initiation complex.

**Synonyms:**

PRKAR2, PKR2, protein kinase A RII-alpha, PKA RII, PKA R2

**Product images:**

Western blot (WB) analysis of PKA IIa reg antibody in extracts from 293 cells.