

## Product datasheet for **AP13604PU-N**

### **PRKAR1B (N-term) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	IHC, WB
<b>Recommended Dilution:</b>	ELISA: 1/1,000. Western blotting: 1/100 - 1/500. Immunohistochemistry: 1/50 - 1/100.
<b>Reactivity:</b>	Human, Mouse
<b>Host:</b>	Rabbit
<b>Isotype:</b>	Ig
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the N-terminal region of human PRKAR1B.
<b>Specificity:</b>	This antibody reacts to PKA R1 beta (PRKAR1B).
<b>Formulation:</b>	PBS with 0.09% (W/V) sodium azide State: Purified State: Liquid purified Ig
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	protein kinase cAMP-dependent type I regulatory subunit beta
<b>Database Link:</b>	<a href="#">Entrez Gene 5575 Human P31321</a>



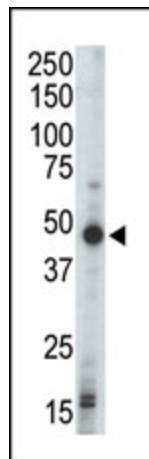
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**Background:**

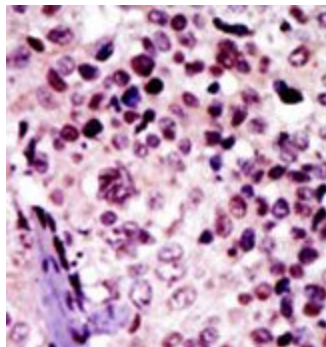
The second messenger cyclic AMP (cAMP) mediates diverse cellular responses to external signals such as proliferation, ion transport, regulation of metabolism and gene transcription by activation of the cAMP-dependent protein kinase (cAPK or PKA). Activation of PKA occurs when cAMP binds to the two regulatory 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), whereas 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:**

PRKAR1, PKA regulatory subunit I beta

**Product images:**

Western blot analysis of anti-PRKAR1B Pab in mouse liver tissue lysate. PRKAR1B (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining.