

**Product Name: PKA II $\alpha$  reg Rabbit Polyclonal Antibody**  
**Catalog #: APRab16180**



## Summary

<b>Production Name</b>	PKA II $\alpha$ reg Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
<b>Reactivity</b>	Human,Rat,Mouse

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	PRKAR2A
<b>Alternative Names</b>	PRKAR2A; PKR2; PRKAR2; cAMP-dependent protein kinase type II-alpha regulatory subunit
<b>Gene ID</b>	5576.0
<b>SwissProt ID</b>	P13861.The antiserum was produced against synthesized peptide derived from human KAP2. AA range:41-90

## Application

<b>Dilution Ratio</b>	WB 1:500-1:2000, IHC-P 1:100-1:300, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:10000.Not yet tested in other applications.
<b>Molecular Weight</b>	45kDa

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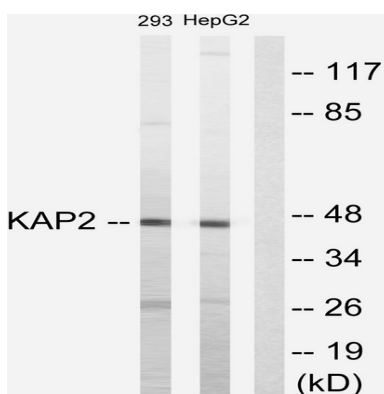
## Background

protein kinase cAMP-dependent type II regulatory subunit alpha(PRKAR2A) Homo sapiens cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. 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. The protein encoded by this gene is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. It may interact with various A-kinase anchoring proteins and determine the subcellular localization of cAMP-dependent protein kinase. This subunit has bfunction:Type II regulatory chains mediate membrane association by binding to anchoring proteins, including the MAP2 kinase.,PTM:Phosphorylated by the activated catalytic chain.,similarity:Belongs to the cAMP-dependent kinase regulatory chain family.,similarity:Contains 2 cyclic nucleotide-binding domains.,subunit:The inactive form of the enzyme is composed of two regulatory chains and two catalytic chains. Activation by cAMP produces two active catalytic monomers and a regulatory dimer that binds four cAMP molecules. Interacts with AKAP4 and CBFA2T3.,tissue specificity:Four types of regulatory chains are found: I-alpha, I-beta, II-alpha, and II-beta. Their expression varies among tissues and is in some cases constitutive and in others inducible.,

## Research Area

Apoptosis\_Inhibition;Apoptosis\_Mitochondrial;Apoptosis\_Overview;Insulin\_Receptor;

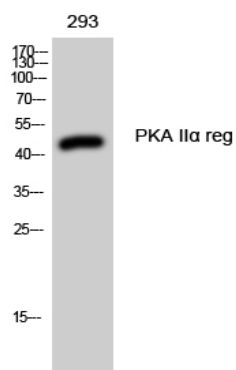
## Image Data



Western blot analysis of lysates from 293 and HepG2 cells, using KAP2 Antibody. The lane on the right is blocked with the synthesized peptide.

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Western Blot analysis of 293 cells using PKA II $\alpha$  reg Polyclonal Antibody

### **Note**

For research use only.