Product Name: PKAβ cat Rabbit Polyclonal Antibody
Catalog #: APRab16187

Summary

Production Name	PKAβ cat Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

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

Immunogen

Gene Name	PRKACB
Alternative Names	PRKACB; cAMP-dependent protein kinase catalytic subunit beta; PKA C-beta
Gene ID	5567.0
SwissProt ID	P22694.The antiserum was produced against synthesized peptide derived from human KAPCB. AA range:291-340

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:20000.
Molecular Weight	53kD

Background

The protein encoded by this gene is a member of the serine/threonine protein kinase family. The encoded protein is a

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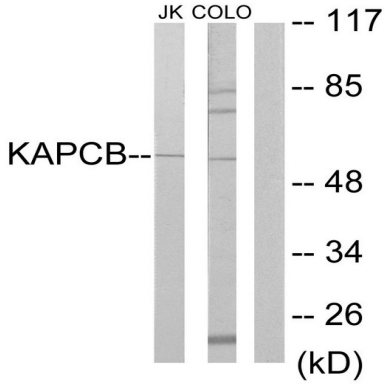
catalytic subunit of cAMP (cyclic AMP)-dependent protein kinase, which mediates signalling though cAMP. cAMP signaling is important to a number of processes, including cell proliferaton and differentiation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2014],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Activated by cAMP.,function:Mediates cAMP-dependent signaling triggered by receptor binding to GPCRs. PKA activation regulates diverse cellular processes such as cell proliferation, the cell cycle, differentiation and regulation of microtubule dynamics, chromatin condensation and decondensation, nuclear envelope disassembly and reassembly, as well as regulation of intracellular transport mechanisms and ion flux.,PTM:Asn-3 is partially deaminated to Asp giving rise to 2 major isoelectric variants, called CB and CA respectively.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. cAMP subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Translocates into the nucleus (monomeric catalytic subunit) (By similarity). The inactive holoenzyme is found in the cytoplasm.,subunit:A number of inactive tetrameric holoenzymes are produced by the combination of homo- or heterodimers of the different regulatory subunits associated with 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.,tissue specificity:Isoform 1 is most abundant in the brain, with low level expression in kidney. Isoform 2 is predominantly expressed in thymus, spleen and kidney. Isoforms 3 and 4 are only epxressed in the brain.,

Research Area

MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Chemokine;Oocyte meiosis;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;Vascular smooth muscle contraction;WNT;WNT-T CELLHedgehog;Gap junction;Long-term potentiation;Olfactory transduction;Taste transduction;Insulin_Receptor;GnRH;Progesterone-mediated oocyte maturation;Melanogenesis;Prion diseases;Vibrio cholerae infection;Dilated cardiomyopathy;

Image Data



Western blot analysis of lysates from Jurkat and COLO205 cells, using KAPCB Antibody. The lane on the right is blocked with the synthesized peptide.

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Note

For research use only.