



Rabbit Anti-PKA C alpha + beta antibody

SL2371R

Product Name:	PKA C alpha + beta
Chinese Name:	蛋白激酶C抗体
Alias:	PKA C alpha+beta; PKA C alpha/beta; PKA C beta; PKACB; KAPCB_HUMAN; PRKACB; Protein kinase cAMP dependent catalytic beta; KAPCA_HUMAN; cAMP-dependent protein kinase catalytic subunit alpha; PKA C-alpha.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40/50kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PKA beta:251-351/351
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP dependent protein kinase (AMPK), which transduces the signal through phosphorylation of different target proteins. The inactive holoenzyme of AMPK 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 of AMPK have been identified in humans. PKA beta (catalytic subunit) is a member of the Ser/Thr protein kinase family and is a catalytic subunit of AMPK.

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. Regulates the abundance of compartmentalized pools of its regulatory subunits through phosphorylation of PJA2 which binds and ubiquitinates these subunits, leading to their subsequent proteolysis.

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. The cAMP-dependent protein kinase catalytic subunit binds PJA2 (By similarity).

Subcellular Location:

oplasm. Cell membrane. Nucleus (By similarity). Note=Translocates into the nucleus (monomeric catalytic subunit) (By similarity). The inactive holoenzyme is found in the cytoplasm (By similarity).

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. Isoform 3 and isoform 4 are only expressed in the brain.

Post-translational modifications:

Asn-3 is partially deaminated to Asp giving rise to 2 major isoelectric variants, called CB and CA respectively (By similarity).

Similarity:

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. cAMP subfamily.

Contains 1 AGC-kinase C-terminal domain.

Contains 1 protein kinase domain.

SWISS:

P17612

Gene ID:

5566

Database links:

[Entrez Gene: 5566](#)Human

[Entrez Gene: 5567](#)Human

[Entrez Gene: 282322](#)Cow

[Entrez Gene: 282323](#)Cow

[Entrez Gene: 18747](#)Mouse

[Entrez Gene: 18749](#)Mouse

[Entrez Gene: 25636](#)Rat

[Olim: 176892](#)Human

[Olim: 601639](#)Human

[SwissProt: P17612](#)Human

[SwissProt: P22694](#)Human

[SwissProt: P05132](#)Mouse

[SwissProt: P05206](#)Mouse

[SwissProt: P27791](#)Rat

[Unigene: 391](#)Cow

[Unigene: 4420](#)Cow

[Unigene: 487325](#)Human

[Unigene: 631630](#)Human

[Unigene: 16766](#)Mouse

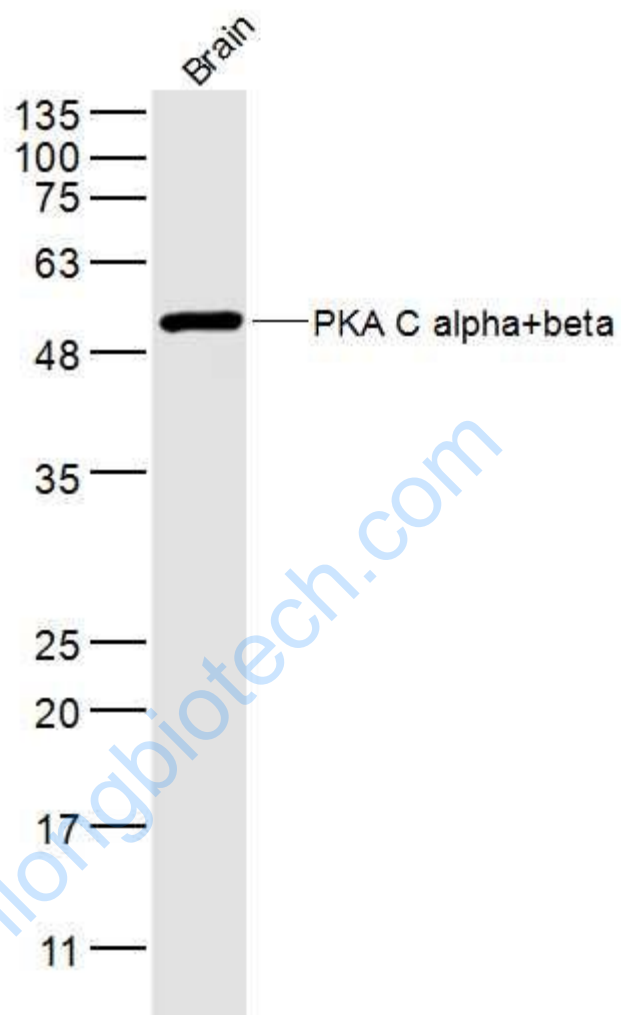
[Unigene: 19111](#)Mouse

[Unigene: 103828](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

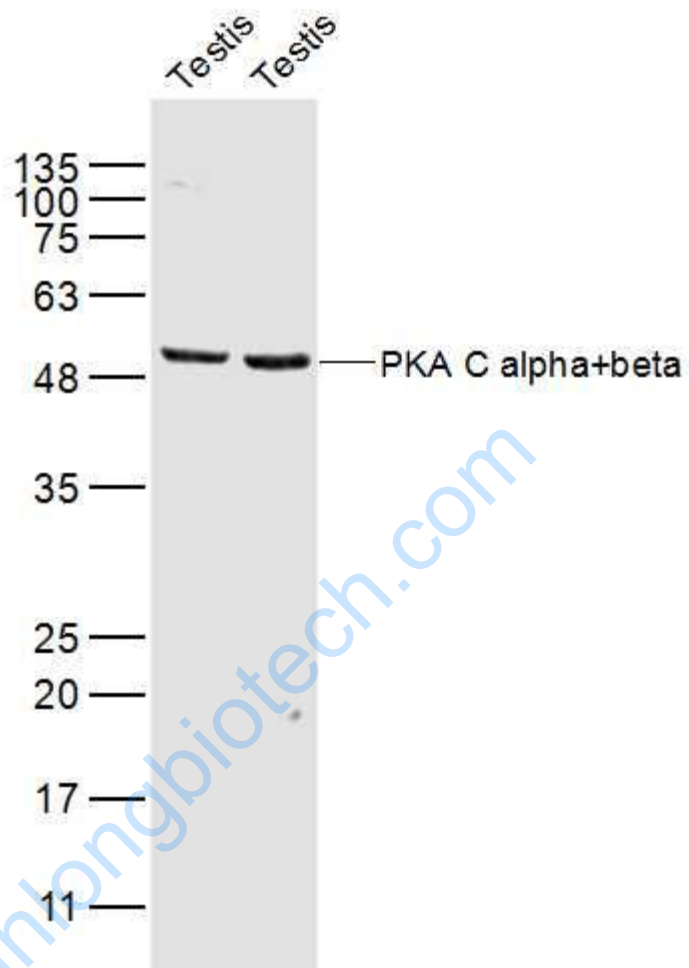
Brain(Rat) Lysate at 40 ug

Primary: Anti-PKA C alpha+beta (SL2371R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 40/50 kD

Observed band size: 50 kD



Sample:

Testis (Mouse) Lysate at 40 ug

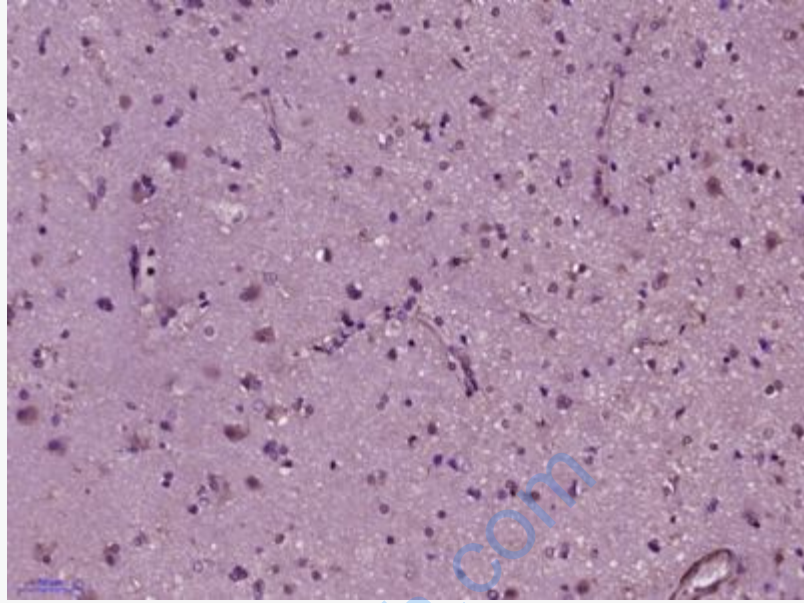
Testis(Rat) Lysate at 40 ug

Primary: Anti-PKA C alpha+beta (SL2371R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 40/50 kD

Observed band size: 50 kD



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PKA C alpha+beta) Polyclonal Antibody, Unconjugated (SL2371R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.