



Rabbit Anti-Phospho-PKA alpha + beta (Thr198) antibody

SL3725R

Product Name:	Phospho-PKA alpha + beta (Thr198)
Chinese Name:	磷酸化蛋白激酶C亚性抗体
Alias:	Phospho-PRKACB(Thr198); Phospho-PKA alpha + beta(Thr198); PKA alpha + beta (catalytic subunits) (phospho T198); C alpha; cAMP dependent protein kinase beta catalytic subunit; cAMP dependent protein kinase alpha catalytic subunit; cAMP dependent protein kinase catalytic subunit alpha; cAMP dependent protein kinase catalytic subunit beta; Cs; PKA; PKA C; PKA C alpha; PKA C beta; PKACA; PKACB; PRKACA; PRKACB; Protein kinase cAMP dependent catalytic alpha; Protein kinase cAMP dependent catalytic beta; Protein kinase cAMP dependent catalytic beta isoform a; Protein kinase cAMP dependent catalytic beta isoform b; KAPCB_HUMAN; PKA C-beta.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human PRKACB around the phosphorylation site of Thr198:TW(p-T)LC
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:	<p>PRKACA and PRKACB are members of the Ser/Thr protein kinase family and are a catalytic subunit of cAMP-dependent protein kinase. 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.</p> <p>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 a member of the Ser/Thr protein kinase family and is a catalytic subunit of cAMP-dependent protein kinase. Several alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jun 2011]</p> <p>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.</p> <p>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.</p> <p>Subcellular Location: Cytoplasm. Cell membrane. Nucleus. Note=Translocates into the nucleus (monomeric catalytic subunit). The inactive holoenzyme is found in the cytoplasm.</p> <p>Tissue Specificity: Isoform 1 is most abundant in the brain, with low level expression in kidney. Isoform 2</p>

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.

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:

P22694

Gene ID:

5567

Database links:

[Entrez Gene: 5567](#)Human

[Entrez Gene: 18749](#)Mouse

[Entrez Gene: 293508](#)Rat

[Omim: 601639](#)Human

[SwissProt: P22694](#)Human

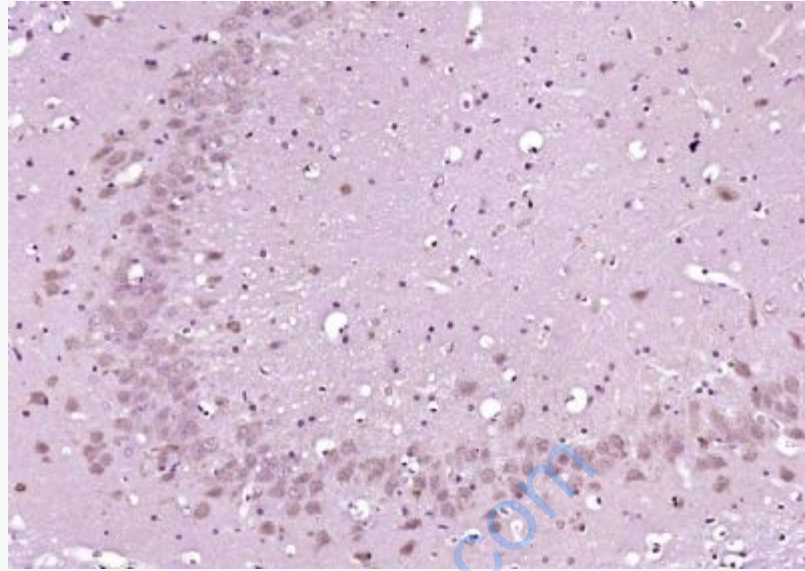
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[SwissProt: P68182](#)Rat

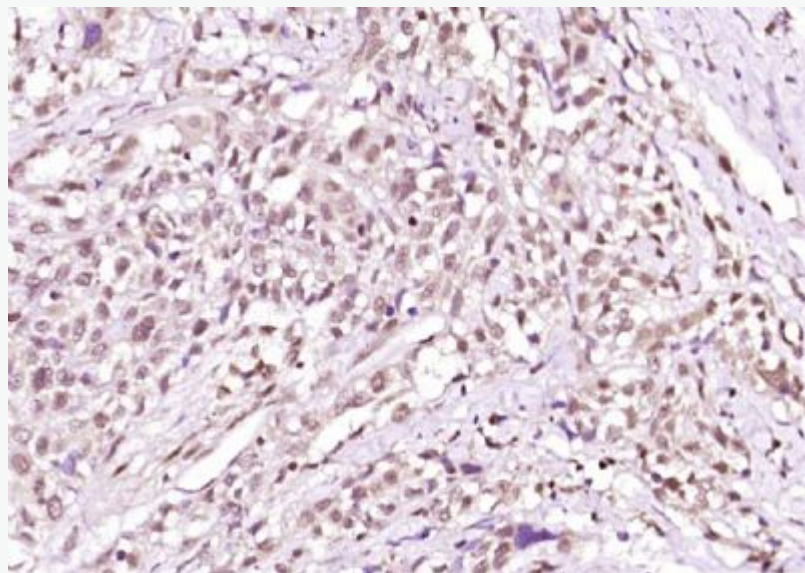
[Unigene: 631630](#)Human

Important Note:

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



Paraformaldehyde-fixed, paraffin embedded (rat brain); 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 (Phospho-PKA alpha + beta (Thr198)) Polyclonal Antibody, Unconjugated (SL3725R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Picture:

Paraformaldehyde-fixed, paraffin embedded (human colon cancer); 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 (Phospho-PKA alpha + beta (Thr198)) Polyclonal Antibody, Unconjugated (SL3725R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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