



Rabbit Anti-phospho-PKA beta (Ser339) antibody

SL4024R

Product Name:	phospho-PKA beta (Ser339)
Chinese Name:	磷酸化蛋白激酶A β 抗体
Alias:	PRKACB (phospho Ser339); PRKACB (phospho S339); PRKACA (phospho Ser339); PRKACA (phospho S339); PKA alpha + beta (catalytic subunits) (phospho S339); PKA alpha + beta (phospho S339); PKA C beta; PKACB; PRKACB; Protein kinase cAMP dependent catalytic beta; cAMP-dependent protein kinase catalytic subunit beta; KAPCB_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=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 PKA beta around the phosphorylation site of Ser339:RV(p-S)IT
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, 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. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

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:

Cytoplasm. 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:
P22694

Gene ID:
5567

Database links:

[Entrez Gene: 282322](#)Cow

[Entrez Gene: 282323](#)Cow

[Entrez Gene: 5566](#)Human

[Entrez Gene: 5567](#)Human

[Entrez Gene: 18747](#)Mouse

[Entrez Gene: 18749](#)Mouse

[Entrez Gene: 25636](#)Rat

[Omim: 176892](#)Human

[Omim: 601639](#)Human

[SwissProt: P00517](#)Cow

[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.

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