

Rabbit PRKACB Polyclonal Antibody | anti-PRKACB antibody

PRKACB Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326978	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PRKACB; Polyclonal Antibody; PRKACB Antibody; cAMP-dependent protein kinase catalytic beta subunit isoform 4ab; cAMP-dependent protein kinase catalytic subunit beta; KAPCB_HUMAN; PKA C beta; PKA C-beta; PKACB; Prkacb; protein kinase A catalytic subunit beta; Protein kinase cAMP dependent catalytic beta; anti-PRKACB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PRKACB antibody detects endogenous levels of total PRKACB
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	358
Applicable Applications for anti-PRKACB antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PRKACB
Subcellular Location	Cytoplasm. Nucleus. Translocates into the nucleus (monomeric catalytic subunit) (By similarity). The inactive holoenzyme is found in the cytoplasm.
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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts of SW480, using PRKACB antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA326978 staining Hela cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326978 at 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-PRKACB antibody	Description: 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. 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 (PubMed:12420224, PubMed:21423175). Phosphorylates GPKOW which regulates its ability to bind RNA (PubMed:21880142). Subunit Structure: 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 (By similarity). The cAMP-dependent protein kinase catalytic subunit binds PJA2 (PubMed:21423175). Interacts with GPKOW (PubMed:21880142). 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.
--	--

NCBI AND UNIPROT INFORMATION

NCBI GI #	338827753
NCBI GeneID	5567
NCBI Accession #	NP_001229786.1
NCBI GenBank Nucleotide #	NM_001242857.2
UniProt Accession #	P22694; Q14VH1; Q59GC0; Q5BNE9; Q5BNF0; Q5BNF1; Q5BNF2; Q5BNF3; Q5CZ92; B1APG4; B4DKB0; B4E2Q1
Molecular Weight	Observed: 40 kDa Predicted: 41 kDa
NCBI Official Full Name	cAMP-dependent protein kinase catalytic subunit beta isoform 4
NCBI Official Synonym Full Names	protein kinase cAMP-activated catalytic subunit beta
NCBI Official Symbol	PRKACB
NCBI Official Synonym Symbols	PKACB; PKA C-beta
NCBI Protein Information	cAMP-dependent protein kinase catalytic subunit beta
UniProt Protein Name	cAMP-dependent protein kinase catalytic subunit beta
UniProt Gene Name	PRKACB

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/prkacb-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326978>