

PKA $\alpha/\beta/\gamma$ cat (Phospho Thr197) Rabbit pAb

CatalogNo: YP0226

| Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 40kD (Observed)

Isotype

- IgG

| Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

| Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

IF 1:200-1:1000

ELISA 1:10000

Not yet tested in other applications.

| Basic Information

Clonality Polyclonal

| Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human PKA CAT around the phosphorylation site of Thr197. AA range:166-215

Specificity Phospho-PKAα/β/γ cat (T198) Polyclonal Antibody detects endogenous levels of PKAα/β/γ cat protein only when phosphorylated at T198. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):TWtLC

Target Information

Gene name	PRKACA/PRKACB		
Protein Name	cAMP-dependent protein kinase catalytic subunit alpha/beta		
	Organism	Gene ID	UniProt ID
	Human	5566 ; 5567 ;	P17612 ; P22694 ; P22612 ;
	Mouse	18747 ; 18749 ;	
	Rat	293508 ;	P27791 ; P68182 ;
Cellular Localization	Cytoplasm. Cell membrane. Nucleus . Mitochondrion . Membrane ; Lipid-anchor . Translocates into the nucleus (monomeric catalytic subunit) . The inactive holoenzyme is found in the cytoplasm. Distributed throughout the cytoplasm in meiotically incompetent oocytes. Associated to mitochondrion as meiotic competence is acquired. Aggregates around the germinal vesicles (GV) at the immature GV stage oocytes (By similarity) . Colocalizes with HSF1 in nuclear stress bodies (nSBs) upon heat shock (PubMed:21085490) . ; [Isoform 2]: Cell projection , cilium , flagellum . Cytoplasmic vesicle , secretory vesicle , acrosome . Expressed in the midpiece region of the sperm flagellum (PubMed:10906071) . Colocalizes with MROH2B and TCP11 on the acrosome and tail regions in round spermatids and spermatozoa regardless of the capacitation status of the sperm (By similarity) . .		
Tissue specificity	Isoform 1 is ubiquitous. Isoform 2 is sperm-specific and is enriched in pachytene spermatocytes but is not detected in round spermatids.		
Function	Catalytic activity:ATP + a protein = ADP + a phosphoprotein. ,enzyme regulation:Activated by cAMP. ,Function:Phosphorylates a large number of substrates in the cytoplasm and the nucleus. ,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 2 is sperm specific. ,		

| Validation Data

| Contact information

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Please scan the QR code
to access additional
product information:
**PKA $\alpha/\beta/\gamma$ cat
(Phospho Thr197)
Rabbit pAb**

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