DATASHEET

PKA C alpha/beta/gamma Rabbit Polyclonal Antibody

CAT. NO. APA07431

KEY FEATURES

Target	PKA C alpha/beta/gamma	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Dog, Pig, Sheep	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Phosphorylates a large number of substrates in the cytoplasm and the nucleus . Phosphorylates CDC25B, ABL1, NFKB1, CLDN3, histone H1.4 (H1-4), PSMC5/RPT6, PJA2, RYR2, RORA, SOX9, UHRF1 and VASP . 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 . RORA is activated by phosphorylation . Required for glucose-mediated adipogenic differentiation increase and osteogenic differentiation inhibition from osteoblasts . Involved in chondrogenesis by mediating phosphorylation of SOX9 .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:500

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to PKA C alpha/beta/gamma
Specificity	Recognizes endogenous levels of PKA C alpha/beta/gamma protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PKA C alpha/beta/gamma. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 40 kD; Observed: 42 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	PRKACA; PKACA; cAMP-dependent protein kinase catalytic subunit alpha; PKA C-alpha; PRKACB; cAMP-dependent protein kinase catalytic subunit beta; PKA C-beta; PRKACG; cAMP-dependent protein kinase catalytic subunit gamma; PKA C-gamma
Gene Symbol	PRKACA; PRKACB; PRKACG
Entrez Gene	5566; 5567(Human); 18747; 18749(Mouse); 293508(Rat)
SwissProt	P17612; P22694; P22612(Human); P05132; P68181(Mouse); P27791; P68182(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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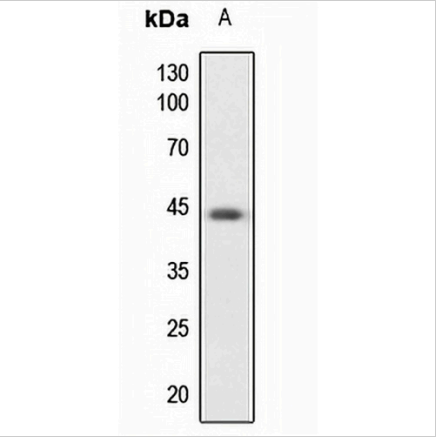
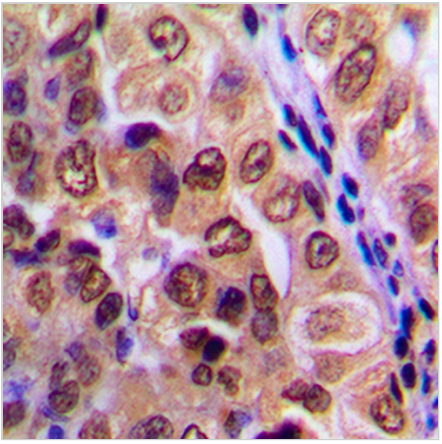
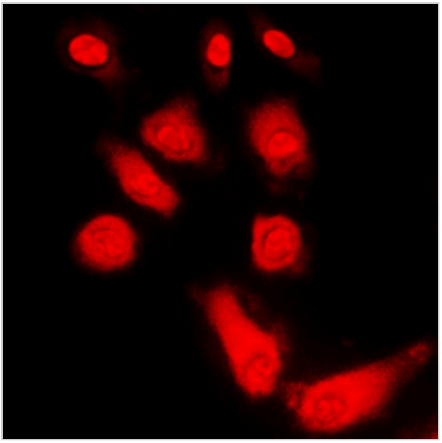
DATA



Western blot analysis of PKA C alpha/beta/gamma expression in mouse spleen (A) whole cell lysates. (Predicted band size: 40 kD; Observed band size: 42 kD)



Immunohistochemical analysis of PKA C alpha/beta/gamma staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PKA C alpha/beta/gamma staining in HEK293T cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.