

DATASHEET

PKA C alpha Rabbit Monoclonal Antibody(C3128)

CAT. NO. AMA02740

KEY FEATURES

| | | | |
|---------------|---|---------------|--------------|
| Target | PKA C alpha | Source / Host | Rabbit |
| Reactivity | Human, Mouse, Rat | Clonality | Monoclonal |
| Applications | WB, IHC, IF/ICC, IP | Conjugation | Unconjugated |
| Form / Buffer | Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA. | 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 | 1:50 - 1:100 |
| IF/ICC | 1:50 - 1:100 |
| IP | 1:10 - 1:50 |

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

PRODUCT OVERVIEW

| | |
|-------------------|---|
| Description | Rabbit monoclonal antibody to PKA C alpha |
| Specificity | Recognizes endogenous levels of PKA C alpha protein. |
| Antibody Type | Primary antibody |
| Immunogen | A synthetic peptide of human cAMP Protein Kinase Catalytic subunit |
| Purification | The antibody was purified by immunogen affinity chromatography. |
| Molecular Weight | Predicted: 41 kD; Observed: 41 kD |
| Form/Buffer | Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA. |
| Alternative Names | PKACA; cAMP-dependent protein kinase catalytic subunit alpha; PKA C-alpha |
| Gene Symbol | PRKACA |
| Entrez Gene | 5566(Human); 18747(Mouse) |
| SwissProt | P17612(Human); P05132(Mouse); P27791(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.

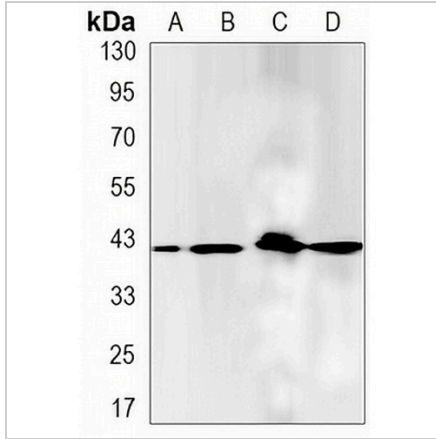
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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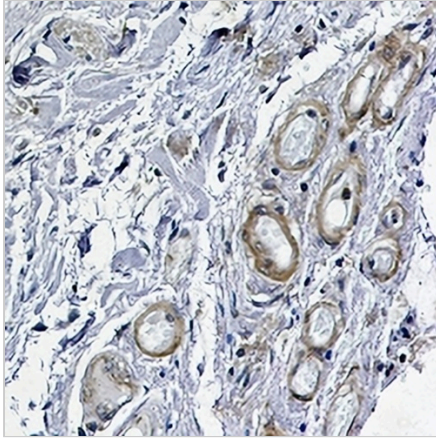
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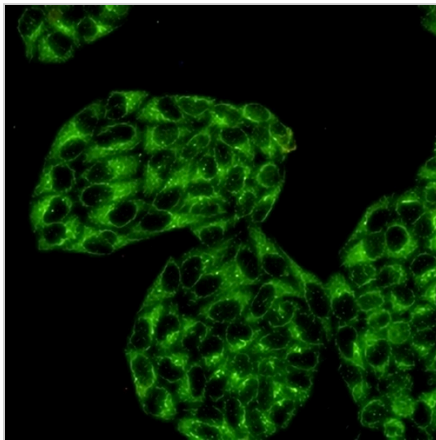
DATA



Western blot analysis of PKA C alpha expression in K562 (A), C6 (B), NIH3T3 (C), HeLa (D) whole cell lysates. (Predicted band size: 41 kD; Observed band size: 41 kD)



Immunohistochemical analysis of PKA C alpha staining in human colon 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 staining in HeLa 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 AREX® Fluor 488 -conjugated secondary antibody (green) 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.