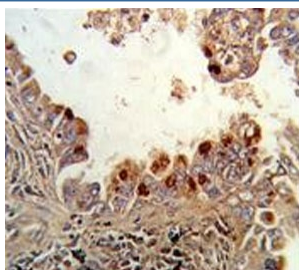


PRKCA Antibody / PKC alpha Rabbit Polyclonal Antibody (F54980)

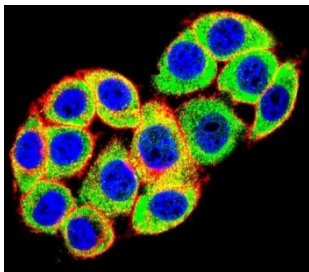
Catalog No.	Formulation	Size
F54980-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54980-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

[Bulk quote request](#)

Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P17252
Localization	Cytoplasmic, nuclear
Applications	Immunofluorescence : 1:25 Flow Cytometry : 1:25 (1x10e6 cells) Immunohistochemistry (FFPE) : 1:25 Western Blot : 1:500-1:2000
Limitations	This PRKCA Antibody / PKC alpha Rabbit Polyclonal Antibody is available for research use only.



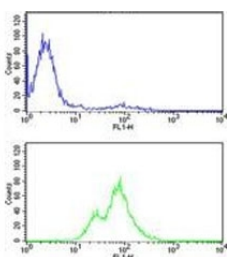
PRKCA Antibody by IHC in human lung carcinoma. Immunohistochemistry of formalin-fixed, paraffin-embedded human lung carcinoma tissue using PKC alpha Rabbit Polyclonal Antibody demonstrates brown immunoreactivity in tumor cells, with variable staining intensity across the tissue section. Positive staining is primarily cytoplasmic, while hematoxylin counterstaining highlights cell nuclei. Heat-induced epitope retrieval was performed by steaming the section in citrate buffer, pH 6.0, for 20 minutes, followed by cooling before antibody staining. The observed immunoreactivity illustrates PKC alpha expression in human lung carcinoma tissue.



PRKCA Antibody by IF in human HeLa cells. Immunofluorescence staining of HeLa cells using PKC alpha Rabbit Polyclonal Antibody demonstrates green fluorescence concentrated along the cytoplasmic and perinuclear regions, with additional signal surrounding the nuclei. Actin is visualized in red, outlining the cellular architecture, while DAPI counterstaining identifies nuclei in blue. The merged image shows PKC alpha immunoreactivity distributed predominantly outside the nuclei, consistent with cytoplasmic localization of this signaling kinase.



PRKCA Antibody by WB in mouse NIH 3T3 cells. Western blot analysis of mouse NIH 3T3 cell lysate using PKC alpha Rabbit Polyclonal Antibody demonstrates a distinct immunoreactive band migrating near 77 kDa, consistent with the predicted molecular weight of protein kinase C alpha. The blot contains a single sample lane with a prominent band positioned between the 72 and 95 kDa molecular weight markers. The observed migration is consistent with detection of full-length PRKCA, a conventional protein kinase C family member involved in calcium- and diacylglycerol-dependent signaling. This result demonstrates recognition of the endogenous target in a mouse fibroblast-derived cell line.



PRKCA Antibody by FACS in human CEM cells. Flow cytometry analysis of human CEM cells using PKC alpha Rabbit Polyclonal Antibody demonstrates a fluorescence distribution shifted toward higher intensity relative to the isotype control. The antibody-stained population is shown in green, while the isotype control is shown in blue. The separation between the distributions indicates detectable PKC alpha immunoreactivity in the tested cell population. This experiment illustrates antibody recognition of PRKCA in human CEM cells under the reported flow cytometry conditions.

Description

PRKCA Antibody / PKC alpha Rabbit Polyclonal Antibody targets protein kinase C alpha, a calcium- and phospholipid-dependent serine/threonine kinase encoded by the PRKCA gene. This enzyme belongs to the conventional protein kinase C family and participates in signaling pathways controlling cellular proliferation, differentiation, adhesion, migration, and survival. PKC alpha translates extracellular signals into intracellular responses through the phosphorylation of regulatory proteins and signaling intermediates.

Protein kinase C alpha contains an N-terminal regulatory region and a C-terminal catalytic domain. Its regulatory region includes calcium-binding C2 and diacylglycerol-binding C1 domains that coordinate activation at cellular membranes. Following receptor stimulation, phospholipase C generates diacylglycerol and inositol trisphosphate, promoting calcium release and recruitment of PKC alpha to membrane-associated signaling complexes. These events facilitate relief of autoinhibition and enable phosphorylation of downstream substrates. Regulatory phosphorylation also contributes to kinase maturation, stability, and enzymatic competence.

PRKCA participates in cytoskeletal remodeling, cell motility, and interactions between cells and the extracellular matrix. One reported substrate is chondroitin sulfate proteoglycan 4 (CSPG4), a membrane-associated protein involved in cellular adhesion and migration. PKC alpha also influences receptor trafficking, epithelial junction organization, and responses to growth factors. Its activity can intersect with MAPK and other signaling networks, producing effects that vary according to cell type and physiological conditions.

Altered PRKCA signaling has been investigated in cancer, cardiovascular disease, and neurological disorders. In malignant cells, PKC alpha can influence proliferation, invasion, and therapeutic responses, although its biological effects are context dependent. The enzyme is also a receptor for phorbol esters, compounds that mimic diacylglycerol and can produce sustained PKC activation. This property has made conventional PKC enzymes important models for studying

signal transduction and tumor-promoting mechanisms.

NSJ Bioreagents provides the PRKCA Antibody for investigating the expression and cellular distribution of this signaling kinase. Raised against a peptide corresponding to amino acids 75-103 of human PRKCA, the PKC alpha Rabbit Polyclonal Antibody recognizes an N-terminal region of the protein. Its defined immunogen region provides a useful distinction from antibodies targeting other portions of PKC alpha.

Explore our [PKC alpha Antibody](#) for additional research into PRKCA expression and calcium-dependent signaling pathways.

Application Notes

The stated application concentrations are suggested starting points. Titration of the PRKCA Antibody / PKC alpha Rabbit Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 75-103 from the human protein was used as the immunogen for the PRKCA Antibody.

Storage

Aliquot the PRKCA Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PKC alpha antibody, Protein Kinase C alpha antibody, PKCA antibody, Protein Kinase C alpha polyclonal antibody, PRKCA polyclonal antibody