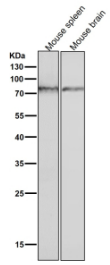
Phospho-PKC (pSer729) Antibody 32P75 / PRKCA PRKCB PRKCE Monoclonal Antibody [clone 32P75] (FY12683)

Catalog No.	Formulation	Size
FY12683	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32P75
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q02156, P05771, P17252
Applications	Western blot: 1:500-1:2000
Limitations	This Phospho-PKC (pSer729) Antibody 32P75 / PRKCA PRKCB PRKCE Monoclonal Antibody is available for research use only.



Phospho-PKC (pSer729) Antibody by WB in mouse spleen and brain tissue. Western blot analysis using PRKCA PRKCB PRKCE Monoclonal Antibody demonstrates immunoreactive bands in mouse spleen (lane 1) and mouse brain (lane 2). Both lanes show a prominent band migrating at approximately 80-84 kDa, consistent with the reported molecular weight of phosphorylated protein kinase C. The spleen sample exhibits a relatively broad band, while the brain sample shows a more defined signal at a comparable molecular weight. The antibody was used at a 1:3000 dilution for 1 hour at room temperature. These results demonstrate recognition of a phosphorylated PKC-associated protein in both mouse tissues, although the blot does not establish which individual PKC isoforms contribute to the observed signal.

Description

Phospho-PKC (pSer729) Antibody 32P75 / PRKCA PRKCB PRKCE Monoclonal Antibody targets a phosphorylated

regulatory motif associated with members of the protein kinase C (PKC) family. Protein kinase C enzymes are serine/threonine kinases that participate in signaling pathways controlling cell proliferation, differentiation, migration, survival, and responses to extracellular stimuli. The PRKCA, PRKCB, and PRKCE genes encode PKC alpha, PKC beta, and PKC epsilon, respectively, which share conserved catalytic domains but differ in their regulatory properties and biological functions.

PKC family members undergo a series of phosphorylation events that regulate kinase maturation, stability, and catalytic competence. These modifications include phosphorylation of the activation loop, turn motif, and hydrophobic motif. Ser729 represents the hydrophobic-motif phosphorylation site of PKC epsilon, while corresponding regulatory sites occur at Ser657 in PKC alpha and Ser660 in PKC beta II. Phosphorylation at these positions contributes to the formation and maintenance of a catalytically competent kinase conformation. However, hydrophobic-motif phosphorylation does not necessarily indicate acute enzyme activation, which also depends on interactions with lipid-derived second messengers and other regulatory factors.

PKC alpha and PKC beta belong to the conventional PKC subgroup, whose activation is regulated by calcium, diacylglycerol, and phospholipids. PKC epsilon belongs to the novel PKC subgroup and responds to diacylglycerol without requiring calcium. These differences allow individual PKC isoforms to participate in distinct signaling networks despite sharing structural similarities. Their downstream functions include regulation of cytoskeletal organization, membrane trafficking, receptor signaling, and cellular responses to growth factors and stress.

Altered PKC phosphorylation and signaling have been investigated in cancer, cardiovascular disease, inflammation, and neurological disorders. Changes in regulatory phosphorylation may influence kinase stability, intracellular localization, and signaling capacity. Because the biological consequences depend on the specific isoform and cellular environment, phosphorylation-dependent detection should be interpreted alongside measurements of total protein abundance and other indicators of kinase activity.

NSJ Bioreagents offers the Phospho-PKC (pSer729) Antibody for investigating phosphorylation-dependent regulation within the PKC signaling network. Clone 32P75 was generated against a synthetic peptide containing phosphorylated Ser729 from human PKC. The PRKCA PRKCB PRKCE Monoclonal Antibody designation reflects the associated PKC family targets, although recognition of each corresponding isoform-specific phosphorylation site requires experimental validation.

Explore our Pan-PKC Antibody for investigating protein kinase C family expression alongside phosphorylation-dependent signaling.

Application Notes

Optimal dilution of the Phospho-PKC (pSer729) Antibody 32P75 / PRKCA PRKCB PRKCE Monoclonal Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-PKC (pS729) was used as the immunogen for the Phospho-PKC (pSer729) Antibody 32P75.

Storage

Store the Phospho-PKC (pSer729) Antibody 32P75 at -20oC.

Alternate Names

Phospho-PKC Ser729 antibody, Phosphorylated Protein Kinase C antibody, Phospho-PKC epsilon antibody, PKC phosphorylation antibody, Phospho-PRKCE antibody

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