Phospho-PKC delta (pThr507) Antibody / Protein kinase C delta [clone 32P74] (FY12386)

Catalog No.	Formulation	Size
FY12386	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

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32P74
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	Q05655
Applications	Western blot: 1:500-1:2000
Limitations	This Phospho-PKC delta (pThr507) antibody is available for research use only.

Description

Phospho-PKC delta (pThr507) antibody recognizes protein kinase C delta phosphorylated at threonine 507. PKC delta is a member of the novel protein kinase C subfamily that functions as a serine threonine kinase involved in diverse cellular processes. Phosphorylation at threonine 507 within the activation loop is essential for catalytic activity and downstream signaling. This modification stabilizes the kinase conformation and enables phosphorylation of target proteins involved in proliferation, apoptosis, and immune responses.

Phospho-PKC delta Thr507 antibody is widely used to study kinase signaling and phosphorylation dependent regulation. By specifically detecting PKC delta in its activated phosphorylated form, the antibody allows researchers to distinguish between inactive and active signaling states. This is particularly important in studies of cancer, cardiovascular disease, and inflammation, where PKC delta activity is tightly regulated and often dysregulated.

The antibody is suitable for western blotting, immunohistochemistry, and immunofluorescence. In western blot assays, Phospho PKC delta (pThr507) antibody detects phosphorylated isoforms of the kinase, enabling quantification of activation under different treatments. In immunohistochemistry, it reveals phosphorylation dependent localization within tissues, highlighting regions of signaling activation. Immunofluorescence experiments allow visualization of PKC delta phosphorylation at the single cell level, providing insight into dynamic regulatory events.

PKC delta has been implicated in pro apoptotic signaling pathways, where activation at Thr507 contributes to programmed cell death. Conversely, in certain cancer contexts, PKC delta activity promotes survival and proliferation. Monitoring Thr507 phosphorylation using phospho specific antibodies provides mechanistic understanding of how PKC delta signaling outcomes vary depending on cellular context. In cardiovascular biology, PKC delta contributes to ischemia reperfusion injury and vascular remodeling, making its phosphorylation status a useful biomarker of stress responses.

Phospho-PKC delta (pThr507) antibody from NSJ Bioreagents provides researchers with a reliable reagent for examining phosphorylation dependent activation of PKC delta. Its proven specificity enables accurate detection across multiple experimental systems, supporting both basic signaling studies and disease related research.

Application Notes

Optimal dilution of the Phospho-PKC delta (pThr507) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-PKC delta (T507) was used as the immunogen for the Phospho-PKC delta (pThr507) antibody.

Storage

Store the Phospho-PKC delta (pThr507) antibody at -20oC.

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