Phospho-Protein Kinase D2 (pSer876) Antibody / PRKD2 [clone 32P58] (FY13086)

Catalog No.	Formulation	Size
FY13086	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, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32P58
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	Q9BZL6
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-Protein Kinase D2 (pSer876) antibody is available for research use only.

Description

Phospho-Protein kinase D2 (pSer876) antibody detects Protein kinase D2 phosphorylated at serine 876, encoded by the PRKD2 gene. Protein kinase D2 is a member of the protein kinase D family of serine threonine kinases that integrate signals from diacylglycerol, protein kinase C, and G protein coupled receptors. Phosphorylation at serine 876 is a critical regulatory event required for full catalytic activity. Phospho-Protein kinase D2 (pSer876) antibody provides researchers with a precise tool to study PRKD2 signaling in cell proliferation, migration, and inflammation.

Protein kinase D2 plays a central role in diverse cellular pathways, including vesicle trafficking, oxidative stress responses, and cytoskeletal remodeling. Studies with Phospho-Protein kinase D2 (Ser876) antibody have shown that phosphorylation at serine 876 occurs within the activation loop of the kinase domain, stabilizing active conformations and promoting downstream signaling. Activation of PRKD2 influences nuclear factor kappa B activity, gene expression, and

secretion of cytokines. This modification thus represents a key regulatory switch linking extracellular signals to transcriptional responses.

PRKD2 has been implicated in oncogenesis, cardiovascular disease, and immune regulation. Research using Phospho-Protein kinase D2 (Ser876) antibody has revealed that hyperactivation of PRKD2 promotes tumor growth, angiogenesis, and metastasis by stimulating survival and motility pathways. In the cardiovascular system, phosphorylation of PRKD2 influences contraction, vascular permeability, and stress responses. Its role in immune signaling involves regulation of T cell receptor pathways and cytokine secretion. The breadth of these functions underscores the importance of monitoring phosphorylation status.

Beyond physiological roles, PRKD2 has become a potential therapeutic target. Small molecule inhibitors that block PRKD activation have been investigated in preclinical cancer and inflammatory models. Phospho-Protein kinase D2 (Ser876) antibody is a valuable tool in assessing drug effects by specifically detecting activation state. Such reagents allow researchers to dissect how therapies modulate phosphorylation dependent PRKD2 signaling and how this impacts cellular outcomes.

Phospho-Protein kinase D2 (pSer876) antibody is applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting distinguishes phosphorylated from total PRKD2, while immunohistochemistry reveals activation patterns in tissue samples. Immunofluorescence demonstrates dynamic localization changes upon stimulation, providing insight into subcellular distribution of active kinase. These applications make the antibody essential for signaling research.

By supplying validated Phospho-Protein kinase D2 (Ser876) antibody reagents, NSJ Bioreagents supports studies of kinase regulation, cancer, and cardiovascular disease. Detection of phosphorylation at serine 876 provides insight into mechanisms of signal transduction and their dysregulation in pathology.

Application Notes

Optimal dilution of the Phospho-Protein Kinase D2 (pSer876) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-Protein Kinase D2 (pS876) was used as the immunogen for the Phospho-Protein Kinase D2 (pSer876) antibody.

Storage

Store the Phospho-Protein Kinase D2 (pSer876) antibody at -20oC.