Phospho-PDGFR beta (pTyr1009) Antibody [clone 32P51] (FY12674)

Catalog No.	Formulation	Size
FY12674	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	32P51
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	P09619
Applications	Western blot: 1:500-1:2000
Limitations	This Phospho-PDGFR beta (pTyr1009) antibody is available for research use only.

Description

Phospho-PDGFR beta (pTyr1009) antibody detects platelet derived growth factor receptor beta when phosphorylated at tyrosine 1009. PDGFR beta, encoded by the PDGFRB gene, is a receptor tyrosine kinase that regulates cell growth, survival, migration, and angiogenesis. Binding of platelet derived growth factor ligands induces receptor dimerization and autophosphorylation at multiple sites. Phosphorylation at Tyr1009 creates a docking site for signaling molecules such as phospholipase C gamma, initiating downstream cascades including MAPK and PI3K pathways. This modification is required for full receptor signaling and biological activity.

Phospho-PDGFR beta (Tyr1009) antibody is widely applied in cancer biology, cardiovascular research, and developmental biology. PDGFR beta is essential for vascular development, pericyte recruitment, and wound healing. Aberrant phosphorylation contributes to oncogenesis, fibrotic disease, and abnormal angiogenesis. By detecting phosphorylation at Tyr1009, researchers can assess PDGFR beta activation status in normal and pathological contexts.

Western blot assays detect phosphorylated PDGFR beta distinct from unmodified protein. Immunohistochemistry maps receptor activation in tumors and vascular tissues, while immunofluorescence highlights membrane localization at sites of ligand stimulation. These methods allow precise analysis of receptor phosphorylation in situ.

Aberrant PDGFR beta phosphorylation has been linked to glioblastoma, leukemia, and sarcomas. Targeted therapies such as tyrosine kinase inhibitors aim to suppress PDGFR signaling, and phospho specific antibodies provide biomarkers for drug efficacy. By applying Phospho-PDGFR beta (pTyr1009) antibody, scientists can investigate therapeutic mechanisms, evaluate resistance pathways, and develop improved interventions.

PDGFR beta phosphorylation is also important in cardiovascular disease and tissue repair. It regulates smooth muscle proliferation, vascular remodeling, and fibrotic responses. Dysregulation leads to hypertension, atherosclerosis, and organ fibrosis. The phospho-specific antibody therefore supports research across oncology, cardiology, and regenerative medicine.

Phospho-PDGFR beta (pTyr1009) antibody from NSJ Bioreagents delivers strong specificity for monitoring PDGFRB activation. Its proven reliability across assays ensures accurate detection of receptor phosphorylation in both basic and translational research.

Application Notes

Optimal dilution of the Phospho-PDGFR beta (pTyr1009) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-PDGFR beta (Y1009) was used as the immunogen for the Phospho-PDGFR beta (pTyr1009) antibody.

Storage

Store the Phospho-PDGFR beta (pTyr1009) antibody at -20oC.

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