Phospho-Syk (pTyr323) Antibody / SYK [clone 32S11] (FY13093)

Catalog No.	Formulation	Size
FY13093	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	32S11
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	P43405
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This Phospho-Syk (Tyr323) antibody is available for research use only.

Description

Phospho-Syk (pTyr323) antibody detects Spleen tyrosine kinase phosphorylated at tyrosine 323, encoded by the SYK gene. Spleen tyrosine kinase is a cytoplasmic non receptor tyrosine kinase that mediates signaling downstream of immunoreceptors such as the B cell receptor, Fc receptors, and integrins. Phosphorylation at tyrosine 323 is a critical modification that regulates kinase activity and adaptor interactions. Phospho-Syk (pTyr323) antibody provides a selective tool for studying immune signaling, B cell activation, and inflammatory responses.

Spleen tyrosine kinase is activated when immunoreceptors are crosslinked, leading to phosphorylation of ITAM motifs and recruitment of SYK through its tandem SH2 domains. Once engaged, SYK becomes phosphorylated at multiple sites, including tyrosine 323, which enhances its catalytic activity and binding to signaling partners. Research with Phospho-Syk

(pTyr323) antibody has demonstrated that this phosphorylation event promotes propagation of signaling cascades leading to calcium flux, MAP kinase activation, and transcriptional responses. These events are fundamental for lymphocyte activation and immune defense.

Beyond lymphocytes, SYK plays roles in innate immune cells, including macrophages, mast cells, and neutrophils. Studies with Phospho-Syk (Tyr323) antibody have shown that phosphorylation at this site regulates Fc receptor signaling, phagocytosis, and cytokine release. Dysregulation of SYK phosphorylation has been linked to autoimmune disease, allergy, and chronic inflammation, making it a therapeutic target. Inhibitors of SYK are in clinical development for treatment of rheumatoid arthritis, lupus, and hematologic malignancies.

Phosphorylation at tyrosine 323 also contributes to oncogenic signaling. Research with Phospho-Syk (Tyr323) antibody has revealed aberrant activation in leukemias and lymphomas, where it drives proliferation and survival. Monitoring phosphorylation state is therefore critical for understanding pathogenesis and evaluating targeted therapies. Because SYK functions at the intersection of immunity and cancer, its phosphorylation events remain of high biomedical importance.

Phospho-Syk (pTyr323) antibody is used in western blotting, immunohistochemistry, and flow cytometry. Western blotting distinguishes phosphorylated and unphosphorylated forms, immunohistochemistry localizes activated kinase in tissue samples, and flow cytometry quantifies phosphorylation dynamics in immune cells. These approaches make Phospho-Syk (pTyr323) antibody essential for dissecting immune receptor signaling.

By supplying validated Phospho-Syk (Tyr323) antibody reagents, NSJ Bioreagents supports research into immune signaling, autoimmunity, and cancer. Detection of Spleen tyrosine kinase phosphorylation at tyrosine 323 provides a precise measure of immune activation.

Application Notes

Optimal dilution of the Phospho-Syk (pTyr323) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-Syk (Y323) was used as the immunogen for the Phospho-Syk (pTyr323) antibody.

Storage

Store the Phospho-Syk (pTyr323) antibody at -20oC.