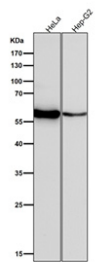
LYN Antibody / Tyrosine-protein kinase Lyn [clone 32L39] (FY13375)

Catalog No.	Formulation	Size
FY13375	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

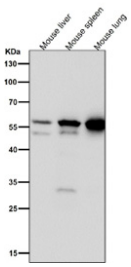
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32L39
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	P07948
Applications	Western Blot : 1:500-1:2000
Limitations	This LYN antibody is available for research use only.



Western blot testing of human samples using the LYN antibody at 1:1000 dilution for 1 hour at room temperature. Predicted molecular weight ~53 kDa (p53lyn), ~56 kDa (p56lyn).



Western blot testing of mouse and rat samples using the LYN antibody at 1:1000 dilution for 1 hour at room temperature. Predicted molecular weight ~53 kDa (p53lyn), ~56 kDa (p56lyn).

Description

LYN antibody detects Tyrosine-protein kinase Lyn, encoded by the LYN gene. Tyrosine-protein kinase Lyn is a member of the Src family of non-receptor tyrosine kinases and is widely expressed in hematopoietic cells, where it plays essential roles in immune receptor signaling, proliferation, differentiation, and apoptosis. LYN antibody provides researchers with a specific reagent for studying signaling networks that govern immune cell activation and cancer biology.

Tyrosine-protein kinase Lyn functions downstream of antigen and cytokine receptors, phosphorylating immunoreceptor tyrosine-based activation and inhibition motifs. Research using LYN antibody has shown that it can both activate and inhibit signaling depending on context, making it a key modulator of immune responses. Lyn phosphorylates substrates such as SYK, PI3K, and SHP phosphatases, coordinating positive and negative feedback loops. This dual regulatory role highlights its importance in immune tolerance and activation balance.

Studies with LYN antibody have revealed its role in B cell receptor signaling. Tyrosine-protein kinase Lyn initiates signaling by phosphorylating immunoreceptor tyrosine-based activation motifs, recruiting downstream effectors that drive calcium flux, gene transcription, and survival. At the same time, it phosphorylates inhibitory motifs that recruit phosphatases to limit signaling intensity. This balance prevents inappropriate activation while allowing robust responses to pathogens.

Dysregulation of Lyn contributes to disease. Research using LYN antibody has demonstrated that overactive Lyn signaling is implicated in chronic myeloid leukemia and B cell malignancies, where it enhances survival and proliferation. Conversely, deficiency or loss of Lyn function contributes to autoimmune disorders by impairing inhibitory signaling. These findings establish Lyn as a therapeutic target in both cancer and autoimmunity.

Lyn also participates in platelet activation, mast cell degranulation, and macrophage responses, emphasizing its broad roles in hematopoietic physiology. Beyond immune function, Lyn contributes to epithelial and neuronal signaling, expanding its relevance to non-hematopoietic systems. These functions highlight the versatility of Tyrosine-protein kinase Lyn as a signaling hub.

LYN antibody is widely used in western blotting, immunohistochemistry, and immunoprecipitation. Western blotting detects total protein levels and phosphorylation states, immunohistochemistry reveals expression in lymphoid organs, and immunoprecipitation enables mapping of protein complexes. These applications make LYN antibody essential for signaling research.

By supplying validated LYN antibody reagents, NSJ Bioreagents supports studies into immune regulation, oncology, and signal transduction. Detection of Tyrosine-protein kinase Lyn provides researchers with insights into how Src family kinases integrate activating and inhibitory signals.

Application Notes

Optimal dilution of the LYN antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Lyn protein was used as the immunogen for the LYN antibody.

Storage

Store the LYN antibody at -20oC.