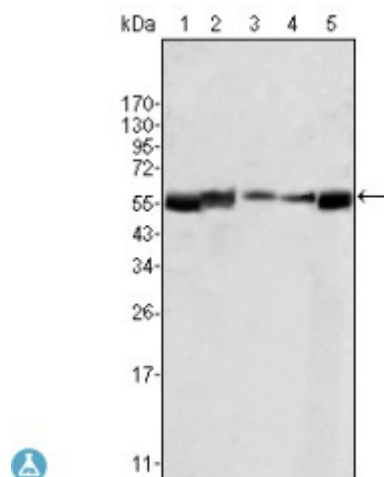


Anti-Lyn antibody



Description	Mouse monoclonal to Lyn.
Model	STJ98226
Host	Mouse
Reactivity	Human
Applications	ELISA, WB
Immunogen	Purified recombinant fragment of Lyn expressed in E. Coli.
Gene ID	4067
Gene Symbol	LYN
Dilution range	WB 1:500-1:2000ELISA 1:10000
Specificity	Lyn Monoclonal Antibody detects endogenous levels of Lyn protein.
Tissue Specificity	Detected in monocytes (at protein level). Detected in placenta, and in fetal brain, lung, liver and kidney. Widely expressed in a variety of organs, tissues, and cell types such as epidermoid, hematopoietic, and neuronal cells. Expressed in primary neuroblastoma tumors.
Purification	Affinity purification
Clone ID	2H8D7
Note	For Research Use Only (RUO).
Protein Name	Tyrosine-protein kinase Lyn Lck/Yes-related novel protein tyrosine kinase V-yes-1 Yamaguchi sarcoma viral related oncogene homolog p53Lyn p56Lyn
Clonality	Monoclonal

Conjugation	Unconjugated
Isotype	IgG2b
Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6735 OMIM:165120
Alternative Names	Tyrosine-protein kinase Lyn Lck/Yes-related novel protein tyrosine kinase V-yes-1 Yamaguchi sarcoma viral related oncogene homolog p53Lyn p56Lyn
Function	Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors and plays an important role in the regulation of innate and adaptive immune responses, hematopoiesis, responses to growth factors and cytokines, integrin signaling, but also responses to DNA damage and genotoxic agents. Functions primarily as negative regulator, but can also function as activator, depending on the context. Required for the initiation of the B-cell response, but also for its down-regulation and termination. Plays an important role in the regulation of B-cell differentiation, proliferation, survival and apoptosis, and is important for immune self-tolerance. Acts downstream of several immune receptors, including the B-cell receptor, CD79A, CD79B, CD5, CD19, CD22, FCER1, FCGR2, FCGR1A, TLR2 and TLR4. Plays a role in the inflammatory response to bacterial lipopolysaccharide. Mediates the responses to cytokines and growth factors in hematopoietic progenitors, platelets, erythrocytes, and in mature myeloid cells, such as dendritic cells, neutrophils and eosinophils. Acts downstream of EPOR, KIT, MPL, the chemokine receptor CXCR4, as well as the receptors for IL3, IL5 and CSF2. Plays an important role in integrin signaling. Regulates cell proliferation, survival, differentiation, migration, adhesion, degranulation, and cytokine release. Down-regulates signaling pathways by phosphorylation of immunoreceptor tyrosine-based inhibitory motifs (ITIM), that then serve as binding sites for phosphatases, such as PTPN6/SHP-1, PTPN11/SHP-2 and INPP5D/SHIP-1, that modulate signaling by dephosphorylation of kinases and their substrates. Phosphorylates LIME1 in response to CD22 activation. Phosphorylates BTK, CBL, CD5, CD19, CD72, CD79A, CD79B, CSF2RB, DOK1, HCLS1, LILRB3/PIR-B, MS4A2/FCER1B, PTK2B/PYK2, SYK and TEC. Promotes phosphorylation of SIRPA, PTPN6/SHP-1, PTPN11/SHP-2 and INPP5D/SHIP-1. Mediates phosphorylation of the BCR-ABL fusion protein. Required for rapid phosphorylation of FER in response to FCER1 activation. Mediates KIT phosphorylation. Acts as an effector of EPOR (erythropoietin receptor) in controlling KIT expression and may play a role in erythroid differentiation during the switch between proliferation and maturation. Depending on the context, activates or inhibits several signaling cascades. Regulates phosphatidylinositol 3-kinase activity and AKT1 activation. Regulates activation of the MAP kinase signaling cascade, including activation of MAP2K1/MEK1, MAPK1/ERK2, MAPK3/ERK1, MAPK8/JNK1 and MAPK9/JNK2. Mediates activation of STAT5A and/or STAT5B. Phosphorylates LPXN on 'Tyr-72'. Kinase activity facilitates TLR4-TLR6 heterodimerization and signal initiation.
Sequence and Domain Family	The protein kinase domain plays an important role in its localization in the cell membrane.
Cellular Localization	Cell membrane. Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Golgi

apparatus. Membrane. Accumulates in the nucleus by inhibition of CRM1-mediated nuclear export. Nuclear accumulation is increased by inhibition of its kinase activity. The trafficking from the Golgi apparatus to the plasma membrane occurs in a kinase domain-dependent but kinase activity independent manner and is mediated by exocytic vesicular transport. Detected on plasma membrane lipid rafts.

Post-translational Modifications

Ubiquitinated by CBL, leading to its degradation. Ubiquitination is SH3-dependent. Autophosphorylated. Phosphorylated on tyrosine residues in response to KIT signaling. Phosphorylation at Tyr-397 is required for optimal activity. Phosphorylation at Tyr-508 inhibits kinase activity. Phosphorylated at Tyr-508 by CSK. Dephosphorylated by PTPRC/CD45. Becomes rapidly phosphorylated upon activation of the B-cell receptor and the immunoglobulin receptor FCGR1A.

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