

**KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1621****Specification****KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">P07948</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 59 kDa , observed , 56 kDa KDa
Gene Name	LYN
Aliases	LYN Proto-Oncogene, Src Family Tyrosine Kinase; JTK8; V-Yes-1 Yamaguchi Sarcoma Viral Related Oncogene Homolog; Lck/Yes-Related Novel Protein Tyrosine Kinase; Tyrosine-Protein Kinase Lyn; EC 2.7.10.2; P53Lyn; P56Lyn; EC 2.7.10; SAIDV A synthesized peptide derived from human Lyn
Immunogen	

**KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody - Additional Information**

Gene ID	4067
<b>Other Names</b>	
Tyrosine-protein kinase Lyn, 2.7.10.2, Lck/Yes-related novel protein tyrosine kinase, V-yes-1 Yamaguchi sarcoma viral related oncogene homolog, p53Lyn, p56Lyn, LYN, JTK8	

**KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody - Protein Information****Name** LYN**Synonyms** JTK8**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. Involved in the regulation of endothelial activation, neutrophil adhesion and transendothelial migration (PubMed:<a href="http://www.uniprot.org/citations/36932076" target="\_blank">36932076</a>). 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, 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. Phosphorylates SCIMP on 'Tyr- 107'; this enhances binding of SCIMP to TLR4, promoting the phosphorylation of TLR4, and a selective cytokine response to lipopolysaccharide in macrophages (By similarity). Phosphorylates CLNK (By similarity). Phosphorylates BCAR1/CAS and NEDD9/HEF1 (PubMed:<a href="http://www.uniprot.org/citations/9020138" target="\_blank">9020138</a>).

#### **Cellular Location**

Cell membrane. Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Golgi apparatus. Membrane; Lipid- anchor. Note=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

#### **Tissue Location**

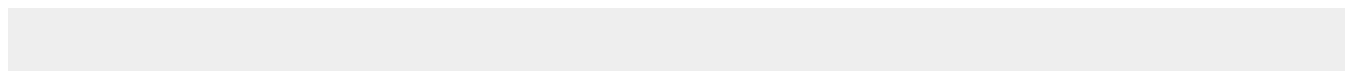
Detected in monocytes (at protein level). Detected in placenta, and in fetal brain, lung, liver and kidney. Widely expressed in a variety of organs, tissues, and cell types such as epidermoid, hematopoietic, and neuronal cells. Expressed in primary neuroblastoma tumors.

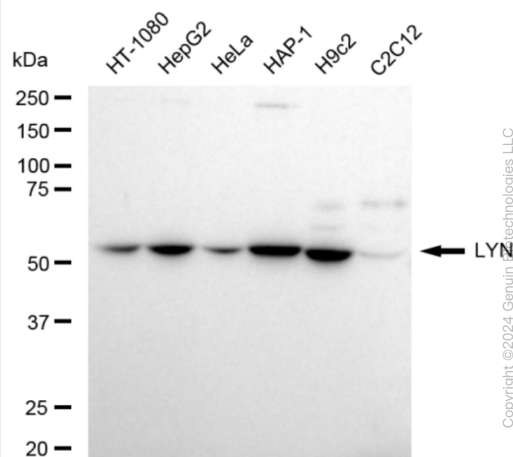
### **KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

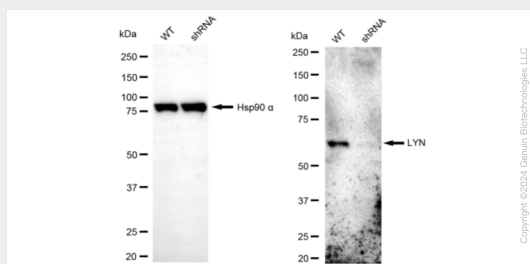
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **KD-Validated Anti-LYN Proto-Oncogene Rabbit Monoclonal Antibody - Images**

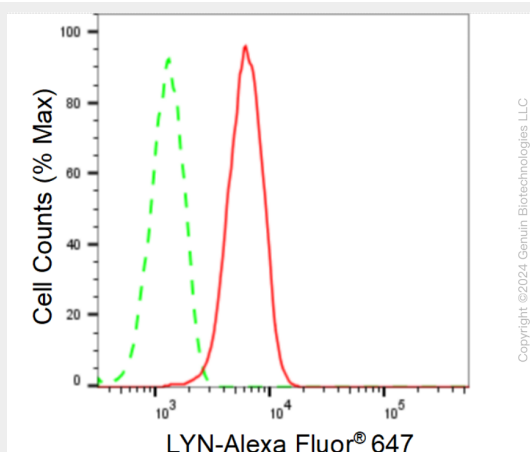




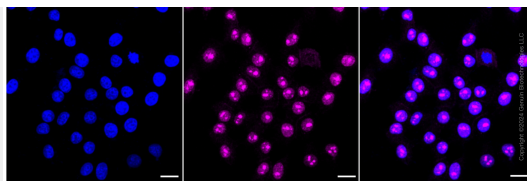
Western blotting analysis using anti-LYN antibody (Cat#AGI1621). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-LYN antibody (Cat#AGI1621, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-LYN antibody (Cat#AGI1621). LYN expression in wild type (WT) and LYN shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-LYN antibody (Cat#AGI1621, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of LYN expression in HepG2 cells using anti-LYN antibody (Cat#AGI1621, 1:2,000). Green, isotype control; red, LYN.



Immunocytochemical staining of HepG2 cells with anti-LYN antibody (Cat#AGI1621, 1:1,000). Nuclei were stained blue with DAPI; LYN was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20  $\mu$ m.