

## Recombinant LYN protein

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**Catalog No:** 81367, 81667

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.25 µg/µl

**Source:** Human

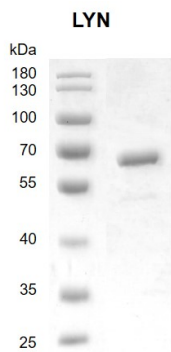
**Buffer Contents:** Recombinant LYN protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

**Background:** LYN (LYN Proto-Oncogene, Src Family Tyrosine Kinase) is a 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. LYN plays an important role in the regulation of B-cell differentiation, proliferation, survival and apoptosis, and is important for immune self-tolerance. Regulates cell proliferation, survival, differentiation, migration, adhesion, degranulation, and cytokine release. It 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. LYN regulates activation of the MAP kinase signaling cascade, including activation of MAP2K1/MEK1, MAPK1/ERK2, MAPK3/ ERK1, MAPK8/JNK1 and MAPK9/JNK2. Diseases associated with LYN include Sarcoma and Mastocytosis, Cutaneous.

**Protein Details:** Recombinant LYN protein was expressed in baculovirus expression system as the full length protein (accession number NP\_001104567.1) with a N-terminal FLAG tag. The molecular weight of the protein is 57 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of arrival.

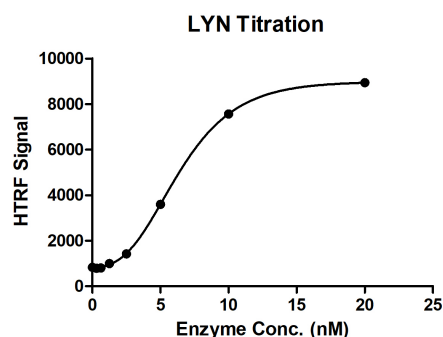


### Recombinant LYN protein

10% SDS-PAGE gel with Coomassie blue staining

MW: 57 kDa

Purity: >90%



### HTRF assay for LYN activity

1  $\mu$ M TK substrate was incubated with different concentrations of LYN protein in a 10  $\mu$ l reaction system containing 1 $\times$ Enzymatic Buffer, 5 mM MgCl<sub>2</sub>, 1 mM DTT, 5 nM SEB and 100  $\mu$ M ATP for 1 hour. Then 10  $\mu$ l detection reagents containing TK antibody (1:2) and SA-XL665 (1:100) diluted with 1 $\times$  Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.