

# Recombinant Human V-Yes-1 Yamaguchi Sarcoma Viral Related Oncogene Homolog, GST-tagged

**Cat. No.** LYN-1127H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant human LYN was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.

### Species

Human

### Source

Sf9 Cells

### Description

LYN is a 56 kd tyrosine kinase that is similar to mouse T-lymphocyte-specific tyrosine kinase p56lck and the v-yes protein as well as to the gene products of v-fgr and v-src. Northern hybridization analysis showed that a 3.2-kilobase LYN mRNA was expressed in a variety of tissues of the human fetus. LYN is expressed preferentially in B cells and can be coimmunoprecipitated with IgM suggesting that LYN is physically associated with membrane-bound IgM, and participates in antigen-mediated signal transduction. Crosslinking of membrane-bound IgM with antibody induces rapid increase in activities of LYN and Lyn-associated phosphatidylinositol 3-kinase. Crosslinking of B-cell antigen receptor also induces association of LYN with an 85-kDa noncatalytic subunit of phosphatidylinositol 3-kinase. Thus, LYN is functionally associated with membrane-bound IgM and participates in B-cell antigen receptor mediated signaling.

### Biological Activity

180 nmol phosphate incorporated into Poly(Glu-Tyr) per minute per mg protein at 30°C for 15 minutes using a final concentration of 50  $\mu$ M ATP (0.83  $\mu$ i/assay).

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|                         |  |
|-------------------------|--|
| <b>Molecular Weight</b> | 85.0 kDa   |
| <b>Form</b>             | Recombinant protein in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).   |
| <b>Appearance</b>       | Liquid   |
| <b>Purity</b>           | >98% by SDS-PAGE and HPLC analyses   |
| <b>Storage</b>          | Store product frozen at or below -70°C. Stable for 1 year at -70°C as undiluted stock. Aliquot to avoid repeated thawing and freezing.   |
| <b>Pathways</b>         | B cell receptor signaling pathway; Chemokine signaling pathway; Epithelial cell signaling in Helicobacter pylori infection; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Hemostasis; Signaling in Immune system; Fc epsilon RI signaling pathway; IL-2 Signaling Pathway |

## GENE INFORMATION

|                        |  |
|------------------------|--|
| <b>Gene Name</b>       | LYN v-yes-1 Yamaguchi sarcoma viral related oncogene homolog [ Homo sapiens ]  |
| <b>Official Symbol</b> | LYN  |
| <b>Synonyms</b>        | LYN; v-yes-1 Yamaguchi sarcoma viral related oncogene homolog; JTK8; FLJ26625; Yamaguchi sarcoma viral (v-yes-1) related oncogene homolog; EC 2.7.10.2; OTTHUMP00000226393; OTTHUMP00000226394 |
| <b>Gene ID</b>         | 4067   |
| <b>mRNA Refseq</b>     | NM_001111097   |

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**Protein Refseq** NP\_001104567

**MIM** 165120

**UniProt ID** P07948

**Chromosome  
Location** 8q13

**Function** ATP binding; glycosphingolipid binding; integrin binding; non-membrane spanning protein tyrosine kinase activity; phosphoprotein binding; platelet-derived growth factor receptor binding; receptor signaling protein tyrosine kinase activity; transferase activity; ubiquitin protein ligase binding

**PDB rendering based  
on 1wa7.**



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