

LYN B (Human), Active

Full-length recombinant protein expressed in Sf9 cells

Cat# CY-SPL13

Lot No. A036-1
5 µg 0.1 µg/µl

Background:

LYN is a 56 kd tyrosine kinase that is similar to mouse T-lymphocyte-specific tyrosine kinase p56lck, v-yes, v-fgr and v-src and is expressed in a variety of tissues (1). 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 (2). Crosslinking of membrane-bound IgM with antibody induces rapid increase in activities of LYN and LYN-associated phosphatidylinositol 3-kinase.

Product Description:

Recombinant full-length human LYN B was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag. The gene accession number is BC059394.

Gene Aliases:

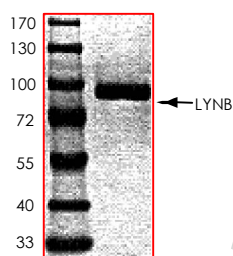
JTK8; p65

Formulation:

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.

Purity & Molecular Weight:

The purity was determined to be >90% by densitometry. Approx. MW 85kDa.



Storage:

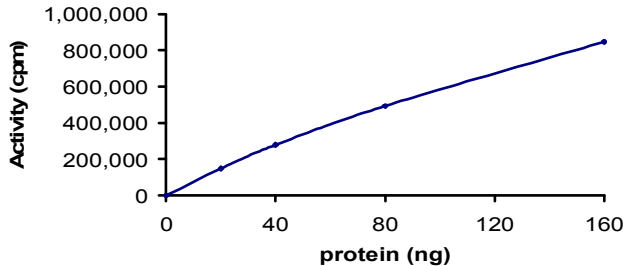
Store product at -70 °C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Stability:

Unopened vial at -70 °C, 1 year from date of shipment.

Specific Activity:

The specific activity was determined to be 235 nmol/min/mg as per Activity Assay Protocol.



Activity Assay Protocol:

Assay activity of the kinase in a 25 μ L reaction consisting of 5 μ L of 5 X Kinase Assay Buffer, 10 μ L of 1 mg/ml the Substrate Solution, 5 μ L of diluted kinase and 5 μ L of 250 μ M ATP solution containing [γ 32 P] ATP (0.167 μ Ci/ μ L). Start the reaction by adding the ATP solution. Incubate for 15 minutes at 30°C. Terminate the reaction by spotting 20 μ L of the reaction mixture onto phosphocellulose P81 paper. Air-dry the P81 paper and sequentially wash 4 times for approximately 10 minutes each in 1% phosphoric acid with constant gentle stirring. Count the P81 paper in a liquid scintillation counter.

Substrate Solution:

Src synthetic peptide substrate (KVEKIGEGTYGVVYK) diluted in distilled H₂O to a final concentration of 1 mg/ml.

5 X Kinase Assay Buffer:

25mM MOPS, 12.5mM β -glycerol-phosphate, 25mM MgCl₂, 5mM EGTA, 2mM EDTA. Add 0.25mM DTT to Kinase Assay Buffer prior to use.

References:

- 1.Yamanashi, Y. et al: The yes-related cellular gene lyn encodes a possible tyrosine kinase similar to p56lck. Mol Cell Biol. 1987 Jan;7(1):237-43.
- 2.Yamanashi, Y. et al: Association of B cell antigen receptor with protein tyrosine kinase Lyn. Science. 1991 Jan 11;251(4990):192-4.

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