

Human Lyn Kinase Protein (GST Tag)

Catalog Number: 10829-H09B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

JTK8; p53Lyn; p56Lyn

Protein Construction:

A DNA sequence encoding the human LYN isoform a (NP_002341.1) (Met 1-Pro 512) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 30 nmol/min/mg using Poly(Glu,Tyr) 4:1 as substrate.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human LYN/GST chimera consists of 736 amino acids and predicts a molecular mass of 84.8 kDa. It migrates as an approximately 75 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 50mM Tris, 100mM NaCl, pH 8.0, 0.5mM Reduced Glutathione, 10% gly, 0.5mM PMSF

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

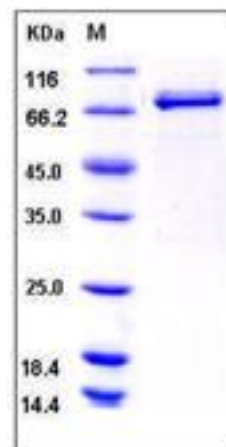
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tyrosine-protein kinase Lyn is a member of the Src family of protein tyrosine kinases, which is mainly expressed in hematopoietic cells, in neural tissues liver, and adipose tissue. Tyrosine-protein kinase Lyn has many functions. Lyn kinase may down regulate expression of stem cell growth factor receptor (KIT). Lyn kinase Acts as an effector of EpoR (erythropoietin receptor) in controlling KIT expression and may play a central role in erythroid differentiation during the switch between proliferation and maturation. Lyn kinase also acts as a positive regulator of cell movement while negatively regulating adhesion to stromal cells by inhibiting the ICAM-1-binding activity of beta-2 integrins. Lyn kinase relays suppressing signals from the chemokine receptor CXCR4 to beta-2 integrin LFA-1 in hematopoietic precursors. This kinase is Involved in induction of stress-activated protein kinase (SAPK), but not ERK or p38 MAPK, in response to genotoxic agents. In a word, Lyn kinase functions primarily as negative regulator, but can also function as activator, depending on the context. Tyrosine-protein kinase Lyn Required for the initiation of the B-cell response, but also for its down-regulation and termination. It also Plays an important role in the regulation of B-cell differentiation, proliferation, survival and apoptosis, and is important for immune self-tolerance. It has been reported that Lyn kinase plays a role in the inflammatory response to bacterial lipopolysaccharide. Lyn kinase 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.

References

- 1.Grishin A V, *et al.* (2001) Interaction between growth arrest-DNA damage protein 34 and Src kinase Lyn negatively regulates genotoxic apoptosis. *Proc Natl Acad Sci U.S.A.* 98 (18): 10172-7.
- 2.Hayashi T, *et al.* (1999) The AMPA receptor interacts with and signals through the protein tyrosine kinase Lyn. *Nature.* 397(6714): 72-6.
- 3.Ptasznik A, *et al.* (2004) Short interfering RNA (siRNA) targeting the Lyn kinase induces apoptosis in primary, and drug-resistant, BCR-ABL1(+) leukemia cells. *Nat Med.* 10(11): 1187-9.

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