

Syk (LR): sc-573



The Power to Question

BACKGROUND

Syk (spleen tyrosine kinase) is a 635 amino acid protein that contains one protein kinase domain and 2 SH2 domains. One of several members of the protein kinase superfamily, Syk functions as a positive effector of B cell antigen receptor (CD79)-stimulated responses, coupling CD79 with the movement of one calcium ion through one of two phospho-regulated pathways. Specifically, calcium ions travel through either a phosphoinositide 3-kinase (PI 3-kinase)-dependent pathway when Syk is not phosphorylated, or through a phospholipase C (PLC) γ -dependent pathway when human Syk is phosphorylated on Tyr 348 and Tyr 352. Via its ability to influence CD79 activity and to control the movement of calcium through the cell, Syk plays an important role in a variety of cellular responses, including differentiation, phagocytosis, proliferation and B cell development. Syk expression is upregulated in T cell lymphoma, suggesting a possible role for Syk in tumorigenesis. Two isoforms of Syk, designated short and long, exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: SYK (human) mapping to 9q22.2; Syk (mouse) mapping to 13 A5.

SOURCE

Syk (LR) is a rabbit polyclonal antibody raised against a peptide sequence mapping within a linker region of Syk of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-573 PE) conjugate for flow cytometry, 100 tests.

Available as agarose (sc-573 AC) conjugate for immunoprecipitation, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

Syk (LR) is recommended for detection of Syk of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μ g per 1×10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Syk siRNA (h): sc-29501, Syk siRNA (m2): sc-44328, Syk shRNA Plasmid (h): sc-29501-SH, Syk shRNA Plasmid (m2): sc-44328-SH, Syk shRNA (h) Lentiviral Particles: sc-29501-V and Syk shRNA (m2) Lentiviral Particles: sc-44328-V.

Molecular Weight of Syk: 72 kDa.

Positive Controls: Syk (h): 293 Lysate: sc-111124, BJAB whole cell lysate: sc-2207 or Ramos cell lysate: sc-2216.

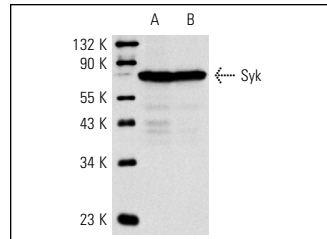
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

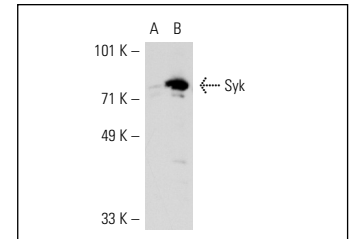
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Syk (LR): sc-573. Western blot analysis of Syk expression in BJAB (A) and Ramos (B) whole cell lysates.



Syk (LR): sc-573. Western blot analysis of Syk expression in non-transfected: sc-110760 (A) and human Syk transfected: sc-111124 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

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- Kato, A. and Oshimi, K. 2009. Ancient ubiquitous protein 1 and Syk link cytoplasmic tails of the integrin α IIb β 3. *Platelets* 20: 105-110.
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- Moraes, L.A., et al. 2010. Non-genomic effects of PPAR γ ligands: inhibition of GPVI-stimulated platelet activation. *J. Thromb. Haemost.* 8: 577-587.
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MONOS
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