SANTA CRUZ BIOTECHNOLOGY, INC.

Syk (C-20): sc-929

SANTA CRUZ BIOTECHNOLOGY

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 calicum 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 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Syk of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-929 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Syk (C-20) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Syk (C-20) is also recommended for detection of Syk in additional species, including equine, canine, bovine and porcine.

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: Ramos cell lysate: sc-2216, BJAB whole cell lysate: sc-2207 or NAMALWA cell lysate: sc-2234.

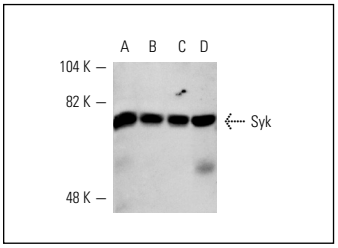
RESEARCH USE

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

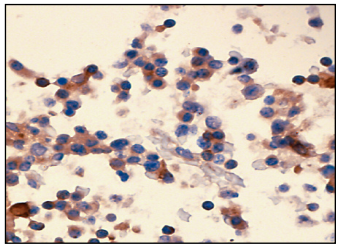
STORAGE

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

DATA



Syk (C-20): sc-929. Western blot analysis of Syk expression in BJAB (**A**), Ramos (**B**), NAMALWA (**C**) and RAW 264.7 (**D**) whole cell lysates.



Syk (C-20): sc-929. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human bone marrow showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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