**BACKGROUND**

Syk (spleen tyrosine kinase) is a 635 amino acid protein that contains one protein kinase domain and two 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 phospholipaseC (PLC)γ-dependent pathway when human Syk is phosphorylated on Tyr348 and Tyr352. 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Syk (6A464) is a mouse monoclonal antibody raised against amino acids 5-360 of Syk of human origin.

**PRODUCT**

Each vial contains 100 µg IgG1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Syk (6A464) 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)) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Syk: 72 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, NAMALWA cell lysate: sc-2234 or Syk (h): 293 Lysate: sc-111124.

**DATA**

![Western blot analysis of Syk expression in BJAB (A), Raji (B), NAMALWA (C) and Ramos (D) whole cell lysates.](image1)

**SELECT PRODUCT CITATIONS**


**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.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

See Syk (4D10): sc-1240 for Syk antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.