

BACKGROUND

Spleen tyrosine kinase (Syk) is a non-receptor protein tyrosine kinase expressed in a wide range of hematopoietic cells.¹ Syk has not only been recognized as a key player in both innate and adaptive immunity, but there is also evidence of a role for Syk in non-immune cells and in the maintenance of vascular integrity,² as well as the pathogenesis of malignant cancer.³ Syk contains two SH2 domains in tandem, and multiple auto-phosphorylation sites. Syk is activated upon binding of tandem SH2 domains to the immunoreceptor tyrosine-based activating motif (ITAM) of various types of receptors such as Fc-gamma-R, CR3, Dectin-1, and apoptotic cell-recognizing receptor. Syk is critical for the tyrosine phosphorylation of multiple proteins which regulate important pathways downstream of the receptor, such as Ca²⁺ mobilization, mitogen-activated protein kinase (MAPK) cascades, PI-3 kinase pathway and many other signaling pathways.⁴

References:

1. Nilsson, S. et al: *Physiol Rev* 81:1535-65, 2001.
2. Tremblay, G. B. et al: *Mol Endocrinol.* 11: 353-365, 1997.
3. Mathews, J & Gustafsson, J. A.: *Mol. Interv.* 3:281-92, 2003.
4. Tremblay, A. et al: *Mol Cell* 3, 513-519, 1999.

TECHNICAL INFORMATION

Source:

Syk Antibody is a mouse monoclonal antibody raised against purified recombinant human Syk fragments expressed in *E. coli*.

Specificity and Sensitivity:

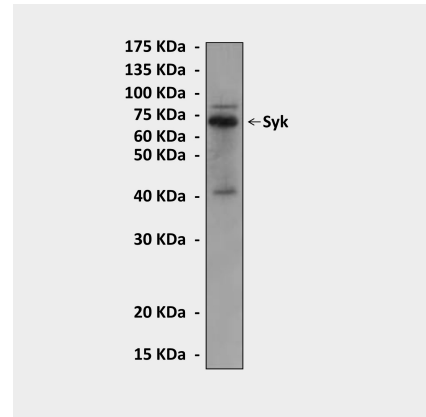
This antibody detects endogenous Syk proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

QUALITY CONTROL DATA



Western Blot detection of Syk proteins in THP-1 cell lysate using Syk Antibody.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	1:50
IHC	1:200
ICC	n/d
FACS	1:50

**Optimal dilutions must be determined by end user.*

