



Anti-SYK (Tyrosine-protein kinase SYK) Polyclonal Antibody

Category: Polyclonal Antibody

Catalog #: AB4C054

Species Reactivity: Human, Mouse

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to C-terminal residues of human SYK (Tyrosine-protein kinase SYK)

Description: SYK (Tyrosine-protein kinase SYK) is a positive effector of BCR-stimulated responses. SYK couples the B-cell antigen receptor (BCR) to the mobilization of calcium ion either through a phosphoinositide 3-kinase-dependent pathway, when not phosphorylated on tyrosines of the linker region, or through a phospholipase C-gamma-dependent pathway, when phosphorylated on Tyr-348 and Tyr-352. Thus the differential phosphorylation of Syk can determine the pathway by which BCR is coupled to the regulation of intracellular calcium ion. SYK interacts with CBL and SLA when it is phosphorylated. The interaction with SLA may link it to CBL, leading to its destruction. SYK interacts with phosphorylated NFAM1. SYK interacts with Epstein-Barr virus LMP2A. SYK interacts through its SH2 domains with the phosphorylated ITAM domain of CD79A which stimulates SYK autophosphorylation and activation. SYK interacts with FCRL3. Phosphorylation on Tyr-323 creates a binding site for c-Cbl, an adapter protein that serves as a negative regulator of BCR-stimulated calcium ion signaling. Phosphorylation on Tyr-348 and Tyr-352 enhances the phosphorylation and activation of phospholipase C-gamma and the early phase of calcium ion mobilization via a phosphoinositide 3-kinase-independent pathway. Ubiquitinated by CBLB after BCR activation; which promotes proteasomal degradation. SYK belongs to the protein kinase superfamily, Tyr protein kinase family and SYK/ZAP-70 subfamily.

Reference:

Yagi,S., et al, Biochem. Biophys. Res. Commun. 200 (1), 28-34 (1994)
Law,C.L., et al, J. Biol. Chem. 269 (16), 12310-12319 (1994)
Muller,B., et al, Immunogenetics 39 (5), 359-362 (1994)
Miller,C.L., et al, Immunity 2 (2), 155-166 (1995)
Deckert,M., et al, J. Biol. Chem. 273 (15), 8867-8874 (1998)
Tang,J., et al, Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9775-9780 (1999)
Xu,M.J., et al, Biochem. Biophys. Res. Commun. 280 (3), 768-775 (2001)
Salomon,A.R.,et al, Proc. Natl. Acad. Sci. U.S.A. 100 (2), 443-448 (2003)
Rikova,K., et al, Cell 131 (6), 1190-1203 (2007)

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