

anti-Syk

Cat #: HM1362
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Syk (spleen tyrosine kinase) is a non-receptor protein tyrosine kinase that is expressed in lymphocytes. It resembles the Src family protein tyrosine kinases with a C-terminal catalytic domain. But it differs from Src in that it contains two SH2 domains but no SH3 domains. Syk couples the B cell antigen receptor (BCR) to the mobilization of calcium ions either through a phosphoinositide 3 kinase dependent pathway, or through a phospholipase C gamma dependent pathway when phosphorylated on Tyr 342 and Tyr 346.

SPECIFICITY

This antibody specifically recognizes Syk of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitation and immunostaining.

Molecular Weight of Syk: 80 kDa.

IMMUNOGEN

A synthetic peptide derived from the linker region of human Syk protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES

1. Kolanus, W., Romeo, C., and Seed, B. 1993. T cell activation by clustered tyrosine kinases. *Cell* 74: 171-183.
2. Couture, C., Baier, G., Altman, A., and Mustelin, T. 1994. p56^{lck}-independent activation and tyrosine phosphorylation of p72^{syk} by T-cell antigen receptor/CD3 stimulation. *Proc. Natl. Acad. Sci. USA* 91: 5301-5305.
3. Law, C.L., Sidorenko, S.P., Chandran, K.A., Draves, K.E., Chan, A.C., Weiss, A., Edelhoff, S., Disteche, C.M. and Clark, E.A. (1994) Molecular cloning of human Syk. A B cell protein-tyrosine kinase associated with the surface immunoglobulin M-B cell receptor complex. *J. Biol. Chem.* 269, 12310-12319.
4. Turner, M., Mee, P.J., Costello, P.S., Williams, O., Price, A.A., Duddy, L.P., Furlong, M.T., Geahlen, R.L. and Tybulewicz, V.L. (1995) Perinatal lethality and blocked B-cell development in mice lacking the tyrosine kinase Syk. *Nature* 378, 298-302.
5. Coopman, P.J., Do, M.T., Barth, M., Bowden, E.T., Hayes, A.J., Basyuk, E., Blancato, J.K., Vezza, P.R., McLeskey, S.W., Mangeat, P.H. and Mueller, S.C. (2000) The Syk tyrosine kinase suppresses malignant growth of human breast cancer cells. *Nature* 406, 742-747
6. Urzainqui, A., Serrador, J.M., Viedma, F., Yanez-Mo, M., Rodriguez, A., Corbi, A.L., Alonso-Lebrero, J.L., Luque, A., Deckert, M., Vazquez, J. and Sanchez-Madrid, F. (2002) ITAM-based interaction of ERM proteins with Syk mediates

signaling by the leukocyte adhesion receptor PSGL-1. *Immunity* 17, 401-412

7. Krishnan, S., Warke, V.G., Nambiar, M.P., Tsokos, G.C. and Farber, D.L. (2003) The FcR gamma subunit and Syk kinase replace the CD3 zeta-chain and ZAP-70 kinase in the TCR signaling complex of human effector CD4 T cells. *J. Immunol.* 170, 4189-4195.
8. Willeke, T., Schymeinsky, J., Prange, P., Zahler, S. and Walzog, B. (2003) A role for Syk-kinase in the control of the binding cycle of the beta2 integrins (CD11/CD18) in human polymorphonuclear neutrophils. *J. Leukoc. Biol.* 74, 260-269.
9. Arndt, P.G., Suzuki, N., Avdi, N.J., Malcolm, K.C. and Worthen, G.S. (2004) Lipopolysaccharide-induced c-Jun NH2-terminal kinase activation in human neutrophils: role of phosphatidylinositol 3-Kinase and Syk-mediated pathways. *J. Biol. Chem.* 279, 10883-10891.

PRODUCTS FROM HYPROMATRIX, INC.**A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™
Catalog Number HM3000
2. Apoptosis AntibodyArray™
Catalog Number HM4000
3. Cell Cycle AntibodyArray™
Catalog Number HM5000

B. Staining AntibodyArray™s

1. Staining AntibodyArray™ I
Catalog Number HM8100
2. AntibodyArray Staining Apparatus
Catalog Number HM8000

C. Antibodies**1. HRP-conjugated antibodies**

- anti-phosphotyrosine
Catalog Number HM2040
- anti-phosphoserine
Catalog Number HM2070
- anti-phosphothreonine
Catalog Number HM2090

and more...

2. Primary antibodies

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at www.hypromatrix.com.

CONTACT

Hypromatrix, Inc.
100 Barber Avenue
Worcester, MA 01606
USA

Tel: 508-856-7900
Fax: 508-302-0748
Email: contact@hypromatrix.com

