

anti-FAK

Cat #: HM1142
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

FAK (Focal Adhesion Associated Protein-Tyrosine Kinase) is a widely expressed non-receptor protein tyrosine kinase. It has a central catalytic domain and a C-terminal tail that localizes it to focal adhesions, which are sites where cells attach to the extracellular matrix via surface integrin receptors. Increased FAK tyrosine phosphorylation occurs upon integrin engagement with fibronectin. Adhesion of murine NIH3T3 fibroblasts to fibronectin promotes association of the Grb2 adapter protein and c-Src PTK with FAK in vivo, and also results in activation of the ERK2 MAP kinase. In v-Src-transformed NIH3T3, the association of v-Src, Grb2, and Sos with FAK is independent of cell adhesion to fibronectin. In vitro the Grb2 SH2 domain binds directly to tyrosine-phosphorylated FAK, and the binding site has been identified as Tyr925 by site directed mutagenesis.

SPECIFICITY

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

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

IMMUNOGEN

A peptide corresponding to the C terminus of human FAK.

STORAGE

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

REFERENCE

- Schaller, M.D., Borgman, C.A., Cobb, B.S., Vines, R.R., Reynolds, A.B., and Parsons, J.T. 1992. pp125FAK, a structurally distinctive protein-tyrosine kinase associated with focal adhesions. *Proc. Natl. Acad. Sci. USA* 89: 5192-5196.
- Lipfert, L., Haimovich, B., Schaller, M.D., Cobb, B.S., Parsons, J.T., and Brugge, J.S. 1992. Integrin-dependent phosphorylation of the protein tyrosine kinase pp125FAK in platelets. *J. Cell. Biol.* 119: 905-912.
- Hanks, S.K., Calallo, M.B., Harper, M.C., and Patel, S.K. 1992. Focal adhesion protein-tyrosine kinase phosphorylated in response to cell attachment to fibronectin. *Proc. Natl. Acad. Sci. USA* 89: 8487-8491.
- Guan, J.-L. and Shalloway, D. 1992. Regulation of focal adhesion-associated protein tyrosine kinase by both cellular adhesion and oncogenic transformation. *Nature* 359: 690-692.
- Schaller, M.D., Hildebrand, J.D., Shannon, J.D., Fox, J.W., Vines, R.R., and Parsons, J.T. 1994. Autophosphorylation of the focal adhesion-associated protein tyrosine kinase,

pp125FAK, directs SH2-dependent binding of pp60src. *Mol. Cell. Biol.* 14: 1680-1688.

- Ilic D, Furuta Y, Kanazawa S, Takeda N, Sobue K, Nakatsuji N, Nomura S, Fujimoto J, Okada M, Yamamoto T. (1995) Reduced cell motility and enhanced focal adhesion contact formation in cells from FAK-deficient mice. *Nature.* 377:539-44.
- Xie Z, Sanada K, Samuels BA, Shih H, Tsai LH. (2003) Serine 732 phosphorylation of FAK by Cdk5 is important for microtubule organization, nuclear movement, and neuronal migration. *Cell.* 114:469-82.

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

- Signal Transduction AntibodyArray™
Catalog Number HM3000
- Apoptosis AntibodyArray™
Catalog Number HM4000
- Cell Cycle AntibodyArray™
Catalog Number HM5000

B. Staining AntibodyArray™s

- Staining AntibodyArray™ I
Catalog Number HM8100
- 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
Web: www.hypromatrix.com