Technical Data Sheet

Purified Mouse Anti- FAK

Product Information

Material Number: 610087
Alternate Name: Focal Adhesion Kinase
Size: 50 µg
Concentration: 250 µg/ml
Clone: 77/FAK
Immunogen: Chicken FAK aa. 354-533
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
 Tested in Development: Mouse, Rat, Dog, Chicken
Target MW: 116-125 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Focal Adhesion Kinase (FAK) is a cytoplasmic tyrosine kinase that colocalizes with integrins in focal adhesions. This cellular localization is directed by a 125 amino acid sequence at the C-terminus called the "Focal Adhesion Targeting sequence" (FAT). The binding of extracellular matrix ligands to integrins triggers autophosphorylation and activation of FAK. This creates binding sites for SH2 domains of intracellular signaling molecules such as src, PI3 kinase, and Grb2. FAK's ability to bind numerous structural and signaling proteins via a variety of interactions has led to substantial speculation about its function. Although FAK's precise role has not been elucidated, proposed possibilities include regulating cell motility, cell growth, cytoskeletal organization, and adhesion-dependent cell survival.

Western blot analysis of FAK on a A431 cell lysate (Human epithelial carcinoma; ATCC CRL-1555). Lane 1: 2 µg/ml, lane 2: 1 µg/ml, lane 3: 0.5 µg/ml of the mouse anti- FAK antibody.

Immunofluorescent staining of U2OS cells. Cells were seeded in a BD Falcon™ 96-well imaging plate (Cat. No. 353219) at ~ 10,000 cells per well. After overnight incubation, cells were stained using the methanol fix/perm protocol (see Recommended Assay Procedure) and the anti-FAK antibody. The second step reagent was FITC goat anti-mouse Ig (Cat. No. 554001). Images were taken on a Pathway 850 imager using a 20x objective. This antibody also stained A549 and HeLa cells and worked with both the Triton-X 100 and Methanol fix/perm protocols (see Recommended Assay Procedure).
**Preparation and Storage**

Store undiluted at -20°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

**Application Notes**

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<td>Bioimaging</td>
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**Recommended Assay Procedure:**

**Western blot:** Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml](http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml)

**Bioimaging:** Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Bioimaging_Certified.shtml](http://www.bdbiosciences.com/pharmingen/protocols/Bioimaging_Certified.shtml)

**Suggested Companion Products**

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<th>Catalog Number</th>
<th>Name</th>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
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<tr>
<td>611447</td>
<td>A431 Cell Lysate</td>
<td>500 µg</td>
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<tr>
<td>353219</td>
<td>BD Falcon™ 96-well Imaging Plate</td>
<td>1 box</td>
<td>(none)</td>
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**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

**References**


Huan Y, van Adelsberg J. Polycystin-1, the PKD1 gene product, is in a complex containing E-cadherin and the catenins. *J Clin Invest.* 1999; 104(10):1459-1468. (Biology: Immunohistochemistry, Western blot)


