SANTA CRUZ BIOTECHNOLOGY, INC.

p-FAK (Tyr 397)-R: sc-11765-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Activation of integrins in the extracellular matrix (ECM) of eukaryotic cells promotes the formation of membrane adhesion complexes, known as focal adhesions, which can include cytoskeletal proteins and protein tyrosine kinases, such as focal adhesion kinase (FAK). Phosphorylation events occurring within focal adhesions influence numerous processes that include mitogenic signaling, cell survival and cell motility. FAK is a non-receptor tyrosine kinase that is ubiquitously expressed and highly conserved between species. FAK is recruited by integrin clusters and variably phosphorylated depending on the effector molecules present in the focal adhesion. Phosphorylation of FAK Tyr 397 decreases during serum starvation, contact inhibition and cell cycle arrest, all conditions under which activating FAK Tyr 407 phosphorylation increases.

CHROMOSOMAL LOCATION

Genetic locus: PTK2 (human) mapping to 8q24.3; Ptk2 (mouse) mapping to 15 D3.

SOURCE

p-FAK (Tyr 397)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 397 phosphorylated FAK of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11765 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-FAK (Tyr 397)-R is recommended for detection of Tyr 397 phosphorylated FAK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-FAK (Tyr 397)-R is also recommended for detection of correspondingly phosphorylated FAK in additional species, including equine, canine and bovine.

Suitable for use as control antibody for FAK siRNA (h): sc-29310, FAK siRNA (m): sc-35353, FAK shRNA Plasmid (h): sc-29310-SH, FAK shRNA Plasmid (m): sc-35353-SH, FAK shRNA (h) Lentiviral Particles: sc-29310-V and FAK shRNA (m) Lentiviral Particles: sc-35353-V.

Molecular Weight of p-FAK: 125 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or FAK (h): 293T Lysate: sc-114600.

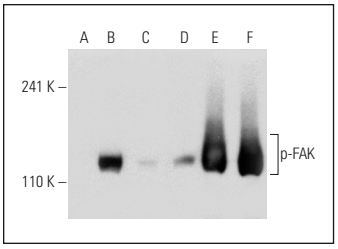
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

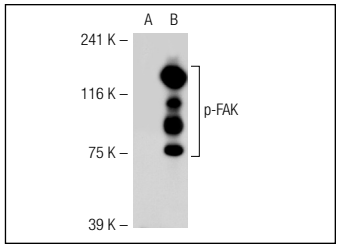
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Western blot analysis of FAK phosphorylation in non-transfected: sc-117752 (**A**,**D**), untreated human FAK transfected: sc-114600 (**B**,**E**) and lambda protein phosphatase (sc-200312A) treated human FAK transfected: sc-114600 (**C**,**F**) 293T whole cell lysates. Antibodies tested include p-FAK (Tyr 397)-R: sc-11765-R (**A**,**B**,**C**) and FAK (12G4): sc-56901 (**D**,**E**,**F**).



p-FAK (Tyr 397)-R: sc-11765-R. Western blot analysis of FAK phosphorylation in non-transfected: sc-117752 (**A**) and human FAK transfected: sc-114600 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Cho, K. 2004. Morphological adjustment of senescent cells by modulating caveolin-1 status. J. Biol. Chem. 279: 42270-42278.
2. Zaytseva, Y.Y., et al. 2011. The PPARγ antagonist T0070907 suppresses breast cancer cell proliferation and motility via both PPARγ-dependent and -independent mechanisms. Anticancer Res. 31: 813-823.
3. Tsai, S.W., et al. 2012. MG63 osteoblast-like cells exhibit different behavior when grown on electrospun collagen matrix versus electrospun gelatin matrix. PLoS ONE 7: e31200.
4. Jiang, W.G., et al. 2012. Inhibitory effects of Yangzheng Xiaoji on angiogenesis and the role of the focal adhesion kinase pathway. Int. J. Oncol. 41: 1635-1642.
5. Lin, K.T., et al. 2012. Bp5250 inhibits vascular endothelial growth factor-induced angiogenesis and HIF-1α expression on endothelial cells. Naunyn Schmiedebergs Arch. Pharmacol. 385: 39-49.
6. Sanchez, A.M., et al. 2013. Effects of progesterone and medroxyprogesterone on actin remodeling and neuronal spine formation. Mol. Endocrinol. 27: 693-702.
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8. Zhang, P., et al. 2013. Exon 4 deletion variant of epidermal growth factor receptor enhances invasiveness and cisplatin resistance in epithelial ovarian cancer. Carcinogenesis 34: 2639-2646.