

p-FAK (Tyr 576)-R: sc-16563-R

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 576)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 576 phosphorylated FAK of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16563-R P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-FAK (Tyr 576)-R is recommended for detection of Tyr 576 phosphorylated FAK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 576)-R is also recommended for detection of correspondingly phosphorylated FAK in additional species, including equine, canine, bovine and avian.

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: NIH/3T3 + anisomycin cell lysate: sc-2247 or HeLa whole cell lysate: sc-2200.

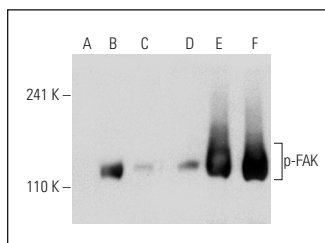
STORAGE

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

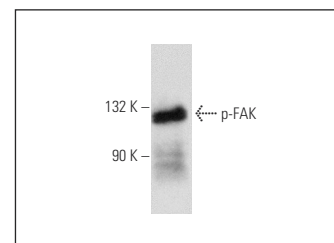
RESEARCH USE

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 576)-R: sc-16563-R (A, B, C) and FAK (12G4): sc-56901 (D, E, F).



p-FAK (Tyr 576)-R: sc-16563-R. Western blot analysis of FAK phosphorylation in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Hamadi, A., et al. 2005. Regulation of focal adhesion dynamics and disassembly by phosphorylation of FAK at tyrosine 397. *J. Cell Sci.* 118: 4415-4425.
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- Perrone, L., et al. 2008. RAGE recycles at the plasma membrane in S100B secretory vesicles and promotes Schwann cells morphological changes. *J. Cell. Physiol.* 217: 60-71.
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- Wu, Z., et al. 2011. Quantitative chemical proteomics reveals new potential drug targets in head and neck cancer. *Mol. Cell. Proteomics* 10: M111.
- Chen, L.C., et al. 2012. Human breast cancer cell metastasis is attenuated by lysyl oxidase inhibitors through down-regulation of focal adhesion kinase and the paxillin-signaling pathway. *Breast Cancer Res. Treat.* 134: 989-1004.
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