

Phospho-FAK (Tyr576/577) Antibody

100 µl
 (10 western blots)

Orders ■ 877-616-CELL (2355)
 orders@cellsignal.com
Support ■ 877-678-TECH (8324)
 info@cellsignal.com
Web ■ www.cellsignal.com

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, (C, X)	125 kDa	Rabbit**

Background: Focal adhesion kinase (FAK) is a widely expressed cytoplasmic protein tyrosine kinase involved in integrin-mediated signal transduction. It plays an important role in the control of several biological processes, including cell spreading, migration and survival (1). Activation of FAK by integrin clustering leads to autophosphorylation at Tyr397, which is a binding site for the Src family kinases PI3K and PLCγ (2-5). Recruitment of Src family kinases results in the phosphorylation of tyrosine residues 407, 576 and 577 in the catalytic domain, and tyrosine residues 871 and 925 in the carboxy-terminal region of FAK (6,7).

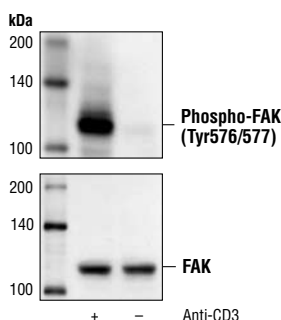
Tyr576 and Tyr577 lie in the activation loop of the kinase domain, and mutation of these residues reduces FAK catalytic activity (6).

Specificity/Sensitivity: Phospho-FAK (Tyr576/577) Antibody detects endogenous levels of FAK only when phosphorylated at tyrosine 576/577.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr576/577 of human FAK. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Parsons, J.T. et al. (2000) *Oncogene* 19, 5606-5613.
- (2) Schaller, M.D. et al. (1994) *Mol. Cell. Biol.* 14, 1680-1688.
- (3) Cobb, B.S. et al. (1994) *Mol. Cell. Biol.* 14, 147-155.
- (4) Chen, H.C. et al. (1996) *J. Biol. Chem.* 271, 26329-26334.
- (5) Zhang, X. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 9021-9026.
- (6) Calalb, M.B. et al. (1995) *Mol. Cell. Biol.* 15, 954-963.
- (7) Schlaepfer, D.D. et al. (1994) *Nature* 372, 786-791.



Western blot analysis of extracts from Jurkat cells, untreated or treated with anti-CD3 antibody (1 µg/ml for 10 minutes) using Phospho-FAK (Tyr576/577) Antibody (upper) or FAK antibody (lower).

Entrez-Gene ID # 5747
Swiss-Prot Acc. # Q05397

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.