

#3284 Store at -20°C

Phospho-FAK (Tyr925) Antibody



✓ 100 µl
(10 western blots)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

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

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

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	1:100
Immunofluorescence (IF-IC)	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.

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 Src family kinases (2,3), PI3K and PLCγ (4,5). The 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).

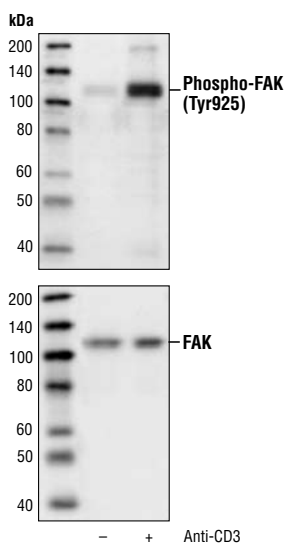
Phosphorylation of Tyr925 creates a binding site for the Grb2/SH2 domain and triggers a Ras-dependent activation of the MAP kinase pathway (7).

Specificity/Sensitivity: Phospho-FAK (Tyr925) Antibody detects endogenous levels of FAK only when phosphorylated at Tyr925.

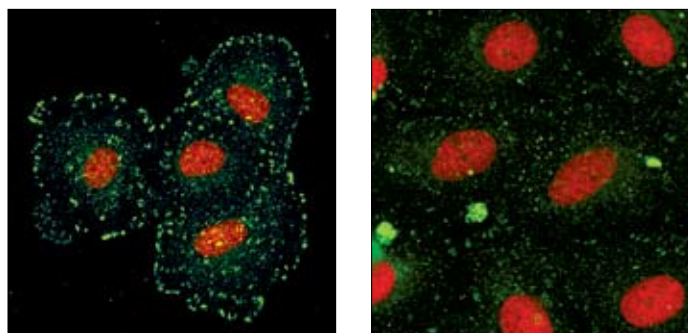
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Tyr925 of human FAK. Antibodies are purified by protein A and peptide affinity chromatography.

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 anti-CD3 antibody-treated (1 µg/ml for 10 minutes) using Phospho-FAK (Tyr925) Antibody (upper) or FAK antibody (lower).



Confocal immunofluorescent analysis of A549 cells, untreated (left) and λ phosphatase-treated (right), using Phospho-FAK (Tyr925) Antibody (green). Red pseudocolor = PI/Rnase Staining Buffer® (fluorescent DNA dye).

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.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.