Revision 3

Store at -20C

#3284

Phospho-FAK (Tyr925) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M	Endogenous	125	Rabbit	#Q05397	5747

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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.

Specificity/Sensitivity

Phospho-FAK (Tyr925) Antibody detects endogenous levels of FAK only when phosphorylated at tyrosine 925. This antibody may cross-react with other tyrosine-phosphorylated RTKs.

Species predicted to react based on 100% sequence homology

Rat, Chicken

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr925 of human FAK. Antibodies are purified by protein A and peptide affinity chromatography.

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 Tyr407, Tyr576, and Tyr577 in the catalytic domain, and Tyr871 and Tyr925 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).

Background References

1. Parsons, J.T. et al. (2000) *Oncogene* 19, 5606-13.
2. Schaller, M.D. et al. (1994) *Mol Cell Biol* 14, 1680-8.
3. Cobb, B.S. et al. (1994) *Mol Cell Biol* 14, 147-55.
4. Chen, H.C. et al. (1996) *J Biol Chem* 271, 26329-34.
5. Zhang, X. et al. (1999) *Proc Natl Acad Sci U S A* 96, 9021-6.
6. Calalb, M.B. et al. (1995) *Mol Cell Biol* 15, 954-63.
7. Schlaepfer, D.D. et al. (1994) *Nature* 372, 786-791.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses

force or effect.

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