

## BACKGROUND

Focal adhesion kinase (FAK) is a protein tyrosine kinase, also known as PTK2, which is recruited to focal adhesions at an early stage, thereby mediating many downstream responses. Integrin stimulation induces FAK autophosphorylation at Tyr397, creating a binding site for the src homology 2 (SH2) domain of the Src-PTKs, src or fyn. The recruited, active Src-PTK phosphorylates several other tyrosine residues in FAK to affect both full FAK activation and the creation of phosphotyrosine binding sites for other signaling molecules, including the adaptor protein Grb2 and the p85-subunit of phosphatidylinositol-3-kinase (PI3 Kinase).<sup>1,2</sup> The Src-PTK-FAK complex mediates the phosphorylation of certain FAK-associated proteins such as p130CAS and paxillin, and the recruitment of other signaling molecules (such as phosphotyrosine-dependent Crk binding to p130CAS and paxillin, and Nck binding to p130CAS), leading to formation of a multi-phospho-component signaling complex localized at focal adhesions.<sup>3</sup> Given that the development of malignancy is often associated with perturbations in these processes, it is not surprising that FAK activity is altered in cancer cells. Mouse models have shown that FAK is involved in tumor formation and progression, and other studies show that FAK expression is increased in human tumors, making FAK a potentially important new therapeutic target.

### References:

- Schaller, M. D. et al: Proc Natl Acad Sci U S A. 89:5192, 1992.
- Calalb, M. B. et al: Mol Cell Biol. 15:954, 1995.
- Law, S.F. et al: Mol Cell Biol. 16:3327, 1996.

## TECHNICAL INFORMATION

### Source:

Affinity purified FAK Antibody is a rabbit polyclonal antibody raised against an epitope near the human FAK carboxyl terminal sequence.

### Specificity and Sensitivity:

This antibody detects endogenous human, mouse and rat FAK proteins.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

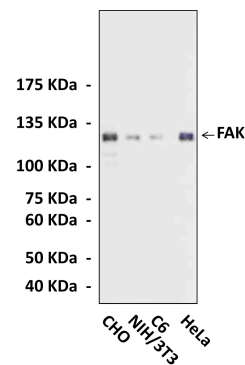
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC (Paraffin)	n/d
ICC	n/d
FACS	n/d

*\*Optimal dilutions must be determined by end user.*

## QUALITY CONTROL DATA



Various cell lysates were subjected to Western blot analysis using FAK polyclonal Antibody.

