

FAK Polyclonal Antibody

Catalog NumberPA5-16676

Product data sheet

Details		Species Reactivity	
Size	500 µL	Species reactivity	Amphibian, Dog, Human, Mouse, Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Human, Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Western Blot (WB)	Dilution *5-10 µg/mL
Immunogen	Recombinant protein corresponding to aa 853-1052 from the C-terminus of human FAK	Immunocytochemistry (ICC/IF)	Assay-dependent
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Western Blot (WB)	See 4 publications below
Concentration	1 mg/mL	Immunocytochemistry (ICC/IF)	See 1 publications below
Storage Conditions	4° C	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	

Product specific information

PA5-16676 targets FAK-Focal Adhesion Kinase in IF and WB applications and shows reactivity with Amphibian, Canine, Human, mouse, and Rat samples. The PA5-16676 immunogen is recombinant protein corresponding to aa 853-1052 from the C-terminus of human FAK.

Background/Target Information

Focal Adhesion Kinase (FAK) is a 125 kDa non-receptor protein tyrosine kinase that acts as a substrate for Src and is a key element of integrin signaling. FAK plays an important role in cell spreading, differentiation, migration, cell death, and acceleration of the G1 to S phase transition of the cell cycle. Tyrosine 397 is the autophosphorylation site of FAK, and involved in its initial activation. This phosphorylated site binds Src family SH2 domains and the p85 subunit of PI3-Kinase, and activates cell migration and invasion. FAK has a central catalytic domain and a C-terminal tail that localizes it to focal adhesions, which are sites where cells attach to the extracellular matrix via surface integrin receptors. Increased FAK tyrosine phosphorylation occurs upon integrin engagement with fibronectin. Adhesion of murine NIH3T3 fibroblasts to fibronectin promotes association of the Grb2 adapter protein and c-Src PTK with FAK in vivo, and also results in activation of the ERK2 MAP kinase. In v-Src-transformed NIH3T3, the association of v-Src, Grb2, and Sos with FAK is independent of cell adhesion to fibronectin. In vitro the Grb2 SH2 domain binds directly to tyrosine-phosphorylated FAK, and the binding site has been identified as Tyr925 by site directed mutagenesis. Several transcript variants encoding different isoforms have been found for the FAK gene, but the full-length natures of only three of them have been determined.

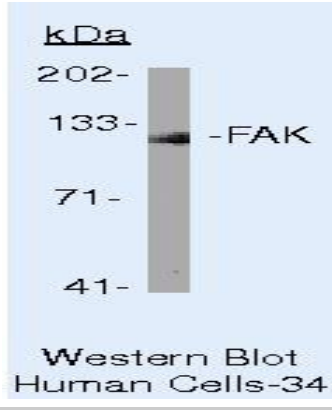
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Product Images For FAK Polyclonal Antibody



**FAK Antibody (PA5-16676) in WB**  
Western blot of FAK-Focal Adhesion Kinase using FAK-Focal Adhesion Kinase Polyclonal Antibody (Product # PA5-16676) on IMR-5 Cells.

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PubMed References For FAK Polyclonal Antibody

4 Western Blot References

Species / Dilution	Summary
Rat / Not Cited	PA5-16676 was used in western blot to investigate the role of the NH2-terminal region of focal adhesion kinase FAK in the affinity IgE receptor-induced secretion in mast cells
	The Journal of biological chemistry ( 2000; 275: 28269) <b>"The NH2-terminal region of focal adhesion kinase reconstitutes high affinity IgE receptor-induced secretion in mast cells."</b> Author(s):Vial D,Okazaki H,Siraganian RP PubMed Article URL: <a href="http://dx.doi.org/10.1074/jbc.M002842200">http://dx.doi.org/10.1074/jbc.M002842200</a>
Human / Not Cited	PA5-16676 was used in western blot to study the modulation of cell polarity and migration and the roles played by VANGL2 and MMP14
	Journal of cell science ( 2012; 125: 2141) <b>"VANGL2 regulates membrane trafficking of MMP14 to control cell polarity and migration."</b> Author(s):Williams BB,Cantrell VA,Mundell NA,Bennett AC,Quick RE,Jessen JR PubMed Article URL: <a href="http://dx.doi.org/10.1242/jcs.097964">http://dx.doi.org/10.1242/jcs.097964</a>
Human / 1:1000	PA5-16676 was used in western blot to investigate the consequences of osteonectin expression in melanoma cells
	International journal of cancer ( 2007; 121: 2653) <b>"Osteonectin downregulates E-cadherin, induces osteopontin and focal adhesion kinase activity stimulating an invasive melanoma phenotype."</b> Author(s):Smit DJ,Gardiner BB,Sturm RA PubMed Article URL: <a href="http://dx.doi.org/10.1002/ijc.23039">http://dx.doi.org/10.1002/ijc.23039</a>
Mouse / Not Cited	PA5-16676 was used in western blot to investigate the effect of expression of mutant SWI/SNF on cell shape and cell attachment
	Journal of cell science ( 2004; 117: 5847) <b>"Inducible changes in cell size and attachment area due to expression of a mutant SWI/SNF chromatin remodeling enzyme."</b> Author(s):Hill DA,Chiosea S,Jamaluddin S,Roy K,Fischer AH,Boyd DD,Nickerson JA,Imbalzano AN PubMed Article URL: <a href="http://dx.doi.org/10.1242/jcs.01502">http://dx.doi.org/10.1242/jcs.01502</a>

1 Immunocytochemistry References

Species / Dilution	Summary
Human / 1:100	PA5-16676 was used in immunocytochemistry to investigate the role of integrins iun the adhesion of retinal pigment epithelium on aged human Bruch membrane
	Experimental eye research ( 2008; 86: 189) <b>"Culture-induced increase in alpha integrin subunit expression in retinal pigment epithelium is important for improved resurfacing of aged human Bruch's membrane."</b> Author(s):Gullapalli VK,Sugino IK,Zarbin MA PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.exer.2007.10.009">http://dx.doi.org/10.1016/j.exer.2007.10.009</a>

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