

FAK Recombinant Rabbit Monoclonal Antibody (5H18L19)

Catalog Number701094

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Published species	Human, Not Applicable
Class	Recombinant Monoclonal	Tested Applications	Dilution *
Type	Antibody	Western Blot (WB)	1-3 µg/mL
Clone	5H18L19	Immunocytochemistry (ICC/IF)	2-4 µg
Immunogen	Recombinant protein corresponding to amino acids 853-1052 of human FAK1	Published Applications	
Conjugate	Unconjugated	Western Blot (WB)	See 1 publications below
Form	Liquid	* 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.	
Concentration	0.5 mg/mL		
Purification	Protein A		
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

This antibody is predicted to react with mouse based on sequence homology. Intact IgG appears on a non-reducing gel as ~150 kDa band and upon reduction generating a ~25 kDa light chain band and a ~50 kDa heavy chain. Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

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. 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 nature of only three of them have been determined.

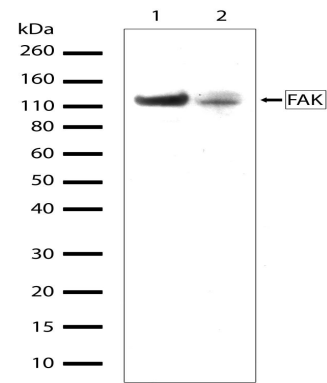
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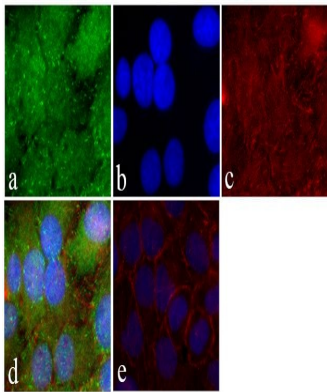
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Product Images For FAK Recombinant Rabbit Monoclonal Antibody (5H18L19)



FAK Antibody (701094) in WB

Western blot analysis of FAK in whole cell extracts of Jurkat (lane 1) and K562 (lane 2) cell lines using a FAK recombinant rabbit monoclonal antibody (Product # 701094) at a dilution of 1 µg/mL.



FAK Antibody (701094) in ICC/IF

Immunofluorescent analysis of FAK1 was done on 70% confluent log phase A549 cells. The cells were fixed with 4% paraformaldehyde for 15 minutes; permeabilized with 0.25% Triton X-100 for 10 minutes followed by blocking with 5% BSA for 1 hour at room temperature. The cells were incubated with FAK1 Recombinant Rabbit Monoclonal Antibody (Product # 701094) at 2 µg-4 µg in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor® 488 Goat anti-Rabbit IgG Secondary Antibody (Product # A-11008) at a dilution of 1:400 for 30 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 594 Phalloidin (Product # A12381). Panel d is a merged image showing membrane and cytoplasmic localization of FAK1. Panel e shows no primary antibody control. The images were captured at 20X magnification.

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PubMed References For FAK Recombinant Rabbit Monoclonal Antibody (5H18L19)

1 Western Blot References

Species / Dilution	Summary
Human / 1:1000	701094 was used in western blot to study pathways involved in metastases and therapeutic resistance of non-small cell lung carcinoma
	Cellular oncology (Dordrecht) (2017; 40: 47)
	"Targeting CXCR4 and FAK reverses doxorubicin resistance and suppresses invasion in non-small cell lung carcinoma." Author(s):Dragoj M,Milosevic Z,Bankovic J,Tanic N,Pesic M,Stankovic T PubMed Article URL: http://dx.doi.org/10.1007/s13402-016-0304-6

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