

Phospho-FAK (Tyr397) Recombinant Rabbit Monoclonal Antibody (31H5L17)

Product Details	
Size	100 µg
Species	Human, Mouse
Published Species	Dog, Artificial Control, Rat, Mouse, Human
Expression System	Rabbit / IgG
Class	Recombinant Monoclonal
Type	Antibody
Clone	31H5L17
Conjugate	Unconjugated
Immunogen	A peptide corresponding to amino acids 390-401 of Q05397.
Form	Liquid
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.
RRID	AB_2532307

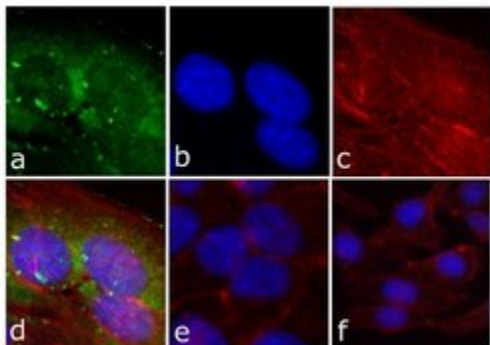
Applications	Tested Dilution	Publications
ELISA (ELISA)	1:500-1:2000	-
Immunocytochemistry (ICC)	1:500-1:2000	5 Publications
Immunofluorescence (IF)	1-2 µg/mL	8 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:1000	2 Publications
Western Blot (WB)	1:500-1:2000	20 Publications
Flow Cytometry (Flow)	-	1 Publication
Immunohistochemistry (IHC)	-	5 Publications
Immunoprecipitation (IP)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

This antibody is predicted to react with mouse, rat, primate, bovine, equine, canine, chicken, opossum, zebra finch, zebrafish, Xenopus, and pufferfish based on sequence homology. In western blotting, this antibody detects intact IgG on a non-reducing gel as ~150 kDa band and upon reduction generates a ~25 kDa light chain band and a ~50 kDa heavy chain; and pervanadate-treated HeLa cells were used as a positive control. This antibody was tested in IHC on breast, gastric, and thyroid carcinoma tissue and on HeLa and A549 cells in IF applications. This antibody has been used as a detector in a sandwich ELISA format. Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression

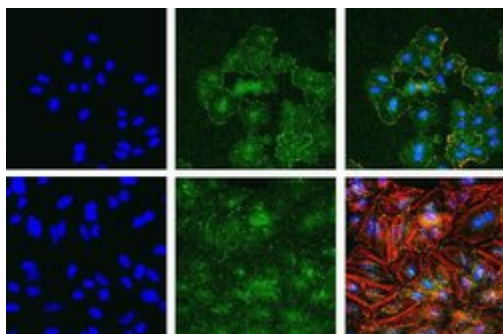
systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

Product Images For Phospho-FAK (Tyr397) Recombinant Rabbit Monoclonal Antibody (31H5L17)



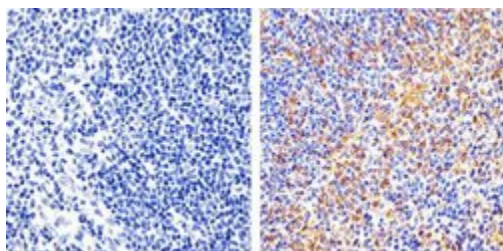
Phospho-FAK (Tyr397) Antibody (700255) in IF

Immunofluorescent analysis of FAK (pY397) was done on 80% confluent log phase HeLa 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 FAK (pY397) Recombinant Rabbit Monoclonal Antibody (Product # 700255) at 1 μ g/mL 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 cytoplasmic of FAK (pY397). Panel e shows no primary antibody. The images were captured at 20X magnification.



Phospho-FAK (Tyr397) Antibody (700255) in IF

Immunofluorescent analysis of Phospho-FAK pTyr397 in A549 (top) and HeLa cells (bottom) using a Phospho-FAK pTyr397 recombinant rabbit monoclonal antibody (Product # 700255) at a dilution of 1:2000 (A549) and 1:1000 (HeLa) followed by detection using an Alexa Fluor 488-conjugated goat anti-rabbit secondary antibody at a dilution of 1:1000. Hoechst only (left), AF488 signal only (middle) and composite image (right) using an Alexa Fluor 568 Phalloidin.



Phospho-FAK (Tyr397) Antibody (700255) in IHC (P)

Immunohistochemistry analysis of FAK showing staining in the cytoplasm and membrane of paraffin-embedded mouse spleen tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS, and then probed with a FAK monoclonal antibody (Product # 700255) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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Immunohistochemistry (5)

Frontiers in oncology

The Adhesion G-Protein-Coupled Receptor, GPR56/ADGRG1, Inhibits Cell-Extracellular Matrix Signaling to Prevent Metastatic Melanoma Growth.

"700255 was used in Immunohistochemistry to suggest that GPR56 in melanoma metastases inhibits extracellular matrix accumulation and adhesion, contributing to its negative effects on metastatic growth."

Authors: Millar MW, Corson N, Xu L

Species
Mouse

Dilution
Not Cited

Year
2020

Oncotarget

The effects of focal adhesion kinase and platelet-derived growth factor receptor beta inhibition in a patient-derived xenograft model of primary and metastatic Wilms tumor.

"700255 was used in Immunohistochemistry to study FAK and PDGFR inhibitors for treatment of metastatic Wilms tumour development and progression."

Authors: Aye JM, Stafman LL, Williams AP, Garner EF, Stewart JE, Anderson JC, Mruthyunjaya S, Waldrop MG, Goolsby CD, Markert HR, Quinn C, Marayati R, Mroczek-Musulman E, Willey CD, Yoon KJ, Whelan KF, Beierle EA

Species
Human

Dilution
1:500

Year
2019

[View more IHC references on thermofisher.com](#)

Western Blot (20)

Communications biology

Electromagnetic fields alter the motility of metastatic breast cancer cells.

"700255 was used in Western Blotting to study the mechanisms underlying the mobility of metastatic breast cancer cells."

Authors: Garg AA, Jones TH, Moss SM, Mishra S, Kaul K, Ahirwar DK, Ferree J, Kumar P, Subramaniam D, Ganju RK, Subramaniam VV, Song JW

Species
Human

Dilution
1:1000

Year
2020

Cancers

Mechanical Durotactic Environment Enhances Specific Glioblastoma Cell Responses.

"700255 was used in Western Blotting to determine the role of glioma cells in the regulation of the aggressive properties of glioblastoma cells."

Authors: Palamà IE, D'Amone S, Ratano P, Donatelli A, Liscio A, Antonacci G, Testini M, Di Angelantonio S, Ragazzino D, Cortese B

Species
Human

Dilution
1:1,000

Year
2019

[View more WB references on thermofisher.com](#)

More applications with references on thermofisher.com

ICC (5) IF (8) Flow (1) IP (1) IHC (P) (2) Misc (1)

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