abcam

Product datasheet

Anti-FAK antibody [EP695Y] - BSA and Azide free ab271836

KO VALIDATED Recombinant RabMAb

7 Images

Overview

Product name	Anti-FAK antibody [EP695Y] - BSA and Azide free
Description	Rabbit monoclonal [EP695Y] to FAK - BSA and Azide free
Host species	Rabbit
Specificity	ab271836 recognises Focal adhesion kinase (FAK). The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Cow
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: human hepatocellular carcinoma
General notes	ab271836 is the carrier-free version of **ab40794**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP695Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab271836 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

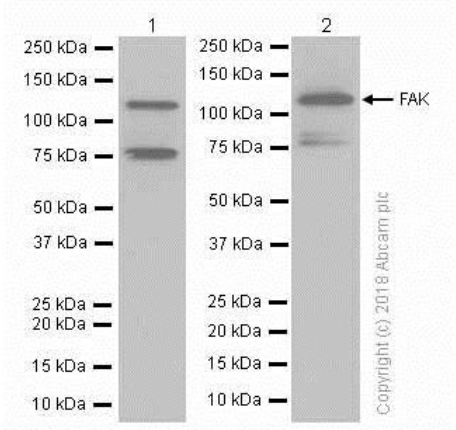
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 119 kDa. For unpurified use at 1/1000
IHC-P		Use at an assay dependent concentration. The mouse, rat and cow recommendation is based on the WB results. We do not guarantee IHC-P for mouse, rat and cow. See IHC antigen retrieval protocols.

Target

Function	Non-receptor protein-tyrosine kinase implicated in signaling pathways involved in cell motility, proliferation and apoptosis. Activated by tyrosine-phosphorylation in response to either integrin clustering induced by cell adhesion or antibody cross-linking, or via G-protein coupled receptor (GPCR) occupancy by ligands such as bombesin or lysophosphatidic acid, or via LDL receptor occupancy. Microtubule-induced dephosphorylation at Tyr-397 is crucial for the induction of focal adhesion disassembly. Plays a potential role in oncogenic transformations resulting in increased kinase activity.
Tissue specificity	Expressed in all organs tested, in lymphoid cell lines, but most abundantly in brain.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily.

	Contains 1 FERM domain. Contains 1 protein kinase domain.
Domain	The first Pro-rich domain interacts with the SH3 domain of CRK-associated substrate (BCAR1) and CASL. The carboxy-terminal region is the site of focal adhesion targeting (FAT) sequence which mediates the localization of FAK1 to focal adhesions.
Post-translational modifications	Phosphorylated on 6 tyrosine residues upon activation. Microtubule-induced dephosphorylation at Tyr-397 could be catalyzed by PTPN11 and regulated by ZFYVE21. Dephosphorylated by PTPN11 upon EPHA2 activation by its ligand EFNA1.
Cellular localization	Cell junction > focal adhesion. Cell membrane. Constituent of focal adhesions.

Images



Western blot - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

All lanes : Anti-FAK antibody [EP695Y] (**ab40794**) at 1/2000 dilution

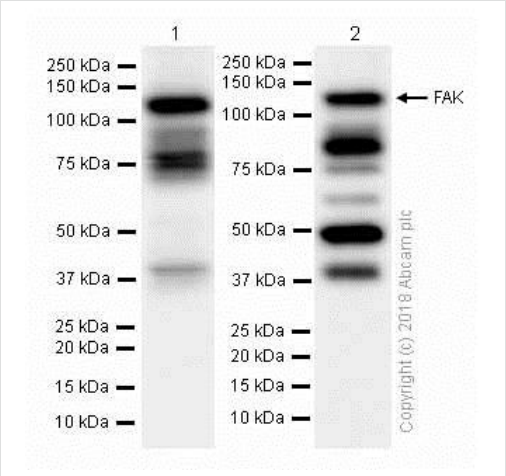
Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 119 kDa

This data was developed using **ab40794**, the same antibody clone in a different buffer formulation.



Western blot - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

All lanes : Anti-FAK antibody [EP695Y] (**ab40794**) at 1/2000 dilution

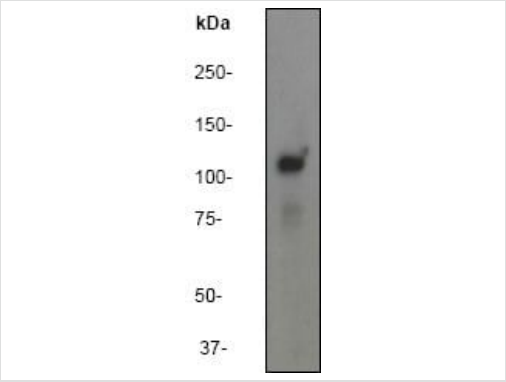
Lane 1 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates
Lane 2 : Rat brain lysates

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 119 kDa

This data was developed using **ab40794**, the same antibody clone in a different buffer formulation.

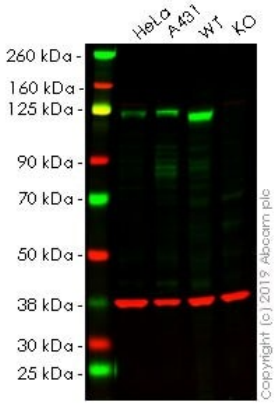


Western blot - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

Anti-FAK antibody [EP695Y] (**ab40794**) at 1/1000 dilution + Hela cell lysate

Predicted band size: 119 kDa
Observed band size: 119 kDa

This data was developed using **ab40794**, the same antibody clone in a different buffer formulation.



Western blot - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

All lanes : Anti-FAK antibody [EP695Y] (**ab40794**) at 1/1000 dilution

Lane 1 : HeLa cell lysate
Lane 2 : A431 cell lysate
Lane 3 : Wild-type HEK-293T cell lysate
Lane 4 : PTK2 knockout HEK-293T cell lysate

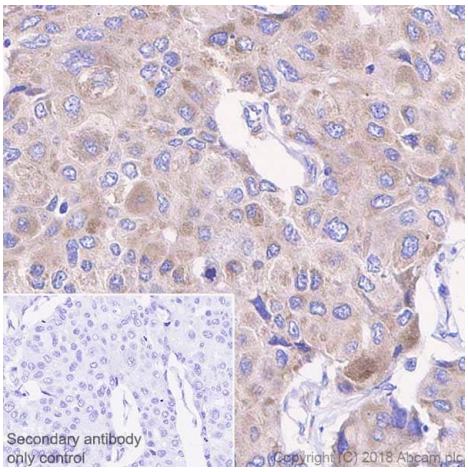
Lysates/proteins at 20 µg per lane.

Predicted band size: 119 kDa

This data was developed using **ab40794**, the same antibody clone in a different buffer formulation

Lanes 1 - 4: Merged signal (red and green). Green - **ab40794** observed at 119 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab40794 was shown to react with FAK in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab255421** (knockout cell lysate **ab263766**) was used. Wild-type and FAK knockout samples were subjected to SDS-PAGE. **ab40794** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



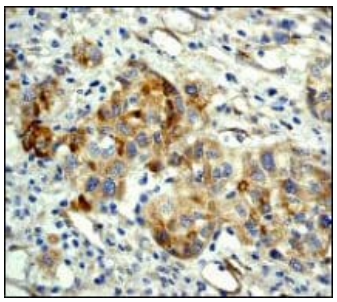
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human hepatocellular carcinoma tissue sections labeling FAK with purified **ab40794** at 1:250 dilution (2.32 µg/ml). Heat mediated antigen retrieval was performed Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody.

Negative control: PBS instead of the primary antibody.

Hematoxylin was used as a counterstain.

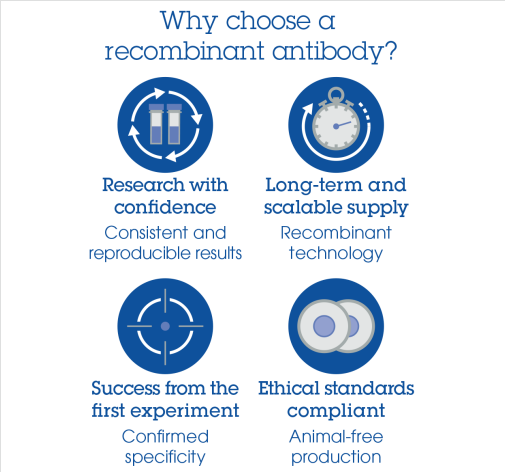
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab40794**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma using **ab40794**.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab40794**).



Anti-FAK antibody [EP695Y] - BSA and Azide free (ab271836)

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