abcam

Product datasheet

Anti-FAK (phospho S910) antibody ab4794

1 References 1 Image

Overview

Product name	Anti-FAK (phospho S910) antibody
Description	Rabbit polyclonal to FAK (phospho S910)
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Chicken, Xenopus laevis
Immunogen	Synthetic peptide corresponding to FAK (phospho S910). The sequence is conserved in human, mouse, rat, chicken and frog.

General notes

FAK is a non-receptor protein tyrosine kinase discovered as a substrate for Src and it is a key protein in integrin, growth factor and bioactive peptide signaling. FAK plays a central role in cell spreading, differentiation, migration, cell death and acceleration of the G1 to S phase transition of the cell cycle. FAK regulation includes phosphorylation at multiple tyrosine and serine residues. Phosphorylation of tyrosine generally is associated with positive regulation and growth promotion, however, dephosphorylation at these sites occurs as cells enter mitosis (M-Phase of the cell cycle). In contrast, serine phosphorylation either remains high or is increased as cells enter mitosis and may play a role in focal adhesion disassembly.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.05% Sodium azide

	Constituents: PBS, 50% Glycerol, 0.1% BSA PBS is without Mg2+ and Ca2+ and BSA is IgG and protease free.
Purity	Immunogen affinity purified
Purification notes	Purified from rabbit serum by sequential epitope-specific chromatography. The antibody has been negatively preadsorbed using (i) a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated Focal Adhesion Kinase enzyme and (ii) a generic serine phosphorylated peptide to remove antibody that is reactive with phospho-serine, irrespective of the sequence. The final product is generated by affinity chromatography using a Focal Adhesion Kinase-derived peptide that is phosphorylated at serine 910.
Primary antibody notes	FAK is a non-receptor protein tyrosine kinase discovered as a substrate for Src and it is a key protein in integrin, growth factor and bioactive peptide signaling. FAK plays a central role in cell spreading, differentiation, migration, cell death and acceleration of the G1 to S phase transition of the cell cycle. FAK regulation includes phosphorylation at multiple tyrosine and serine residues. Phosphorylation of tyrosine generally is associated with positive regulation and growth promotion, however, dephosphorylation at these sites occurs as cells enter mitosis (M-Phase of the cell cycle). In contrast, serine phosphorylation either remains high or is increased as cells enter mitosis and may play a role in focal adhesion disassembly.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4794 in the following tested applications.

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

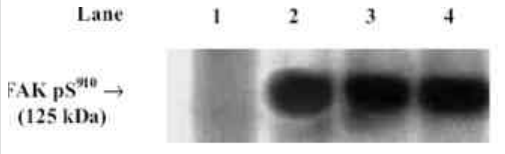
Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 125 kDa.

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 (phospho S910) antibody (ab4794)

Specificity for detecting FAK pS910 phosphorylation using a phospho-specific antibody (PSSA): Cell extracts prepared from mitotic human epithelial carcinoma cells expressing FAK were resolved by SDS-PAGE on a 10% Tris-glycine gel, and transferred to nitrocellulose. Membranes were incubated with 0.5 µg/mL ab4794, following prior incubation in the presence of the peptide immunogen (lane 1), a generic phosphoserine peptide (lane 2), the non-phosphopeptide corresponding to the FAK phosphopeptide (lane 3), or the absence of the peptide immunogen (lane 4). After washing, membranes were incubated with goat F(ab')2 anti-rabbit IgG alkaline phosphatase and bands were detected using the Tropix WesternStar detection method. The data show that only the phosphopeptide corresponding to the peptide immunogen blocks the antibody signal, thereby demonstrating the specificity of the ab4794 PSSA for the targeted phosphorylation site. Specificity for detecting FAK pS910 phosphorylatio

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors