abcam

Product datasheet

Anti-FAK (phospho Y397) antibody ab39967

4 Abreviews　15 References　画像数 3

製品の概要

製品名	Anti-FAK (phospho Y397) antibody
製品の詳細	Rabbit polyclonal to FAK (phospho Y397)
由来種	Rabbit
特異性	This antibody gave a positive result in ELISA against the immunizing peptide (ab40145). It gave a negative result in ELISA against the non-modified equivalent peptide (ab53601). This indicates that it is specific for the modified peptide.
アプリケーション	**適用あり:** WB, ICC/IF, IHC-P
種交差性	**交差種:** Mouse, Human, Drosophila melanogaster **交差が予測される動物種:** Rat, Chicken, Zebrafish
免疫原	Synthetic peptide conjugated to KLH derived from within residues 350 - 450 of Human FAK, phosphorylated at Y397.Immunogen の所有権に関して(Peptide available as ab40145.)
ポジティブ・コントロール	NIH 3T3 Whole Cell Lysate, NIH 3T3 Whole Cell Lysate treated with Vanadate + PDGF, A431 Whole Cell Lysate trated with EGF

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

Our Abpromise guarantee covers the use of **ab39967** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 119 kDa (predicted molecular weight: 119 kDa).
ICC/IF	★★★★★	Use a concentration of 5 µg/ml.
IHC-P	★★★★★	Use at an assay dependent concentration.

ターゲット情報

機能

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.

組織特異性

Expressed in all organs tested, in lymphoid cell lines, but most abundantly in brain.

配列類似性

Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily.
Contains 1 FERM domain.
Contains 1 protein kinase domain.

ドメイン

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.

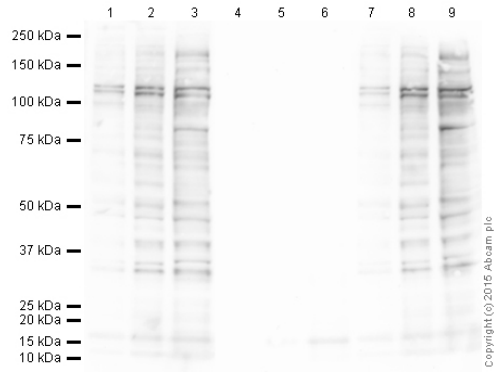
翻訳後修飾

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.

細胞内局在

Cell junction > focal adhesion. Cell membrane. Constituent of focal adhesions.

画像



Western blot - Anti-FAK (phospho Y397) antibody (ab39967)

All lanes : Anti-FAK (phospho Y397) antibody (ab39967) at 1 µg/ml

Lane 1 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate at 10 µg
Lane 2 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate at 10 µg
Lane 3 : EGF-Stimulated A431 Whole Cell Lysate at 20 µg
Lane 4 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate at 10 µg

with Mouse FAK (phospho Y397) peptide (ab40145) at 1 µg/ml
Lane 5 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate at 10 µg with Mouse FAK (phospho Y397) peptide (ab40145) at 1 µg/ml
Lane 6 : EGF-Stimulated A431 Whole Cell Lysate at 20 µg with Mouse FAK (phospho Y397) peptide (ab40145) at 1 µg/ml
Lane 7 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate at 10 µg with Mouse FAK peptide (ab53601) at 1 µg/ml
Lane 8 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate at 10 µg with Mouse FAK peptide (ab53601) at 1 µg/ml
Lane 9 : EGF-Stimulated A431 Whole Cell Lysate at 20 µg with Mouse FAK peptide (ab53601) at 1 µg/ml

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

Developed using the ECL technique.

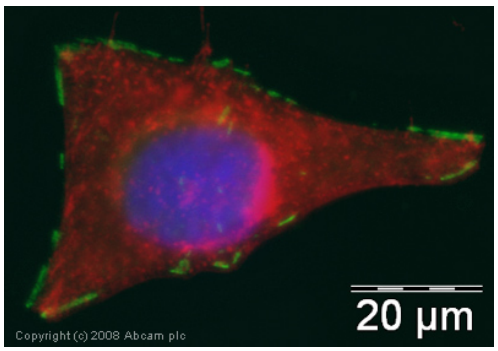
Performed under reducing conditions.

Predicted band size: 119 kDa
Observed band size: 120 kDa
Additional bands at: 115 kDa, 200 kDa, 90 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 4 minutes

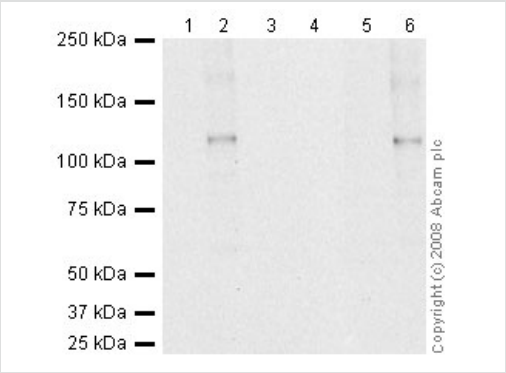
This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab39967 overnight at 4°C. Antibody binding was

detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.



Immunocytochemistry/ Immunofluorescence - Anti-FAK (phospho Y397) antibody (ab39967)

ICC/IF image of ab39967 stained human HeLa cells. The cells were methanol fixed (5 min), permabilised in 0.1% PBS-Tween (20 min) and incubated with the antibody (ab39967, 5µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



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All lanes : Anti-FAK (phospho Y397) antibody (ab39967) at 1 µg/ml

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Lane 2 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate
Lane 3 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate with Mouse FAK (phospho Y397) peptide (ab40145) at 1 µg/ml
Lane 4 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate with Mouse FAK (phospho Y397) peptide (ab40145) at 1 µg/ml
Lane 5 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate with Mouse FAK peptide (ab53601) at 1 µg/ml
Lane 6 : NIH 3T3 treated with Vanadate and PDGF Whole Cell Lysate with Mouse FAK peptide (ab53601) at 1 µg/ml

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

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

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