abcam

Product datasheet

Anti-FAK (phospho S732) antibody ab4792

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概述

产品名称 Anti-FAK (phospho S732)抗体

描述 兔多克隆抗体to FAK (phospho S732)

宿主 Rabbit

经测试应用 适用于: WB

种属反应性 与反应: Mouse, Human

预测可用于: Chicken, Xenopus laevis 4

免疫原 Synthetic peptide corresponding to Human FAK (phospho S732).

常规说明

Focal Adhesion Kinase is a 125 kDa non-receptor protein tyrosine kinase that plays a key role in signalling by growth factors, extracellular matrix and stress signals. Indeed, Focal Adhesion Kinase plays a central role in cell spreading, differentiation, migration, cell death and acceleration of the G1 to S phase transition of the cell cycle. Cyclin-dependent kinase-5 (Cdk5), a serine/threonine kinase and an important regulator in brain development, has been found to be essential for phosphorylation at serine 732. In the context of the Focal Adhesion Kinase-Related Non-Kinase (FRNK), the c-terminal non-kinase domain of Focal Adhesion Kinase that acts as a dominant negative inhibitor of Focal Adhesion Kinase signalling, other serine kinases appear to readily phosphorylate this same site. The functional significance of phosphorylation on serine 732 is yet to be determined.

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

性能

形式

存放说明 Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

存储溶液 pH: 7.30

Preservative: 0.05% Sodium azide

Constituents: PBS, 2.5% Glycerol, 0.1% BSA

BSA is IgG and protease free

纯**度** Immunogen affinity purified

纯**化说明** 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 phosphoserine, irrespective of the sequence. The final product is generated by affinity chromatography using a Focal Adhesion Kinase-derived peptide that is phosphorylated at

serine 732.

Primary antibody说明 Focal Adhesion Kinase is a 125 kDa non-receptor protein tyrosine kinase that plays a key role in signalling by growth factors, extracellular matrix and stress signals. Indeed, Focal Adhesion

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of the G1 to S phase transition of the cell cycle. Cyclin-dependent kinase-5 (Cdk5), a serine/threonine kinase and an important regulator in brain development, has been found to be essential for phosphorylation at serine 732. In the context of the Focal Adhesion Kinase-Related Non-Kinase (FRNK), the c-terminal non-kinase domain of Focal Adhesion Kinase that acts as a dominant negative inhibitor of Focal Adhesion Kinase signalling, other serine kinases appear to

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克隆 多克隆

同种型 IgG

应用

The Abpromise quarantee Abpromise™承诺保证使用ab4792于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use a concentration of 0.1 - 0.5 µg/ml. Predicted molecular weight: 125 kDa.

靶标

功能 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.

组织特异性 Expressed in all organs tested, in lymphoid cell lines, but most abundantly in brain.

序列相似性 Belongs to the protein kinase superfamily. Tyr protein kinase family. FAK subfamily.

Contains 1 FERM domain.

Contains 1 protein kinase domain.

结构域 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.

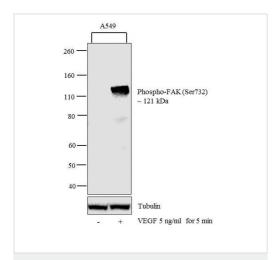
翻译后修饰 Phosphorylated on 6 tyrosine residues upon activation. Microtubule-induced dephosphorylation at

Tyr-397 could be catalyzed by PTPN11 and regulated by ZFYVE21. Dephosphorylated by

PTPN11 upon EPHA2 activation by its ligand EFNA1.

细胞定位 Cell junction > focal adhesion. Cell membrane. Constituent of focal adhesions.

图片



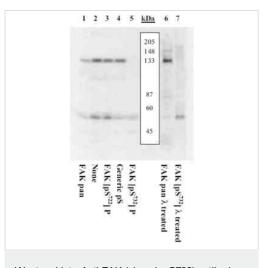
Western blot - Anti-FAK (phospho S732) antibody (ab4792)

All lanes : Anti-Metabotropic Glutamate Receptor 6/MGLUR6 antibody (<u>ab10314</u>)

Lane 1: A549 without VEGF treatment.

Lane 2: A549 with 5 ng/ml VEGF treatment for 5 mins.

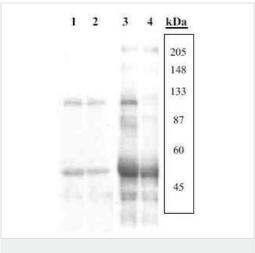
Predicted band size: 125 kDa



Western blot - Anti-FAK (phospho S732) antibody (ab4792)

Peptide Competition: Extracts prepared from cdk5 +/- mouse brain lysates were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to nitrocellulose. Membranes were blocked with a 5% BSA-TBST buffer overnight at 4°C, then were incubated with FAK pan antibody (1), or 0.34 µg/mL ab4792 antibody for two hours at room temperature in a 3% BSA TBST buffer, following prior incubation with: no peptide (2), the phosphopeptide corresponding to ab4792 (3), a generic phosphoserine containing peptide (4), or, the phosphopeptide immunogen (5). After washing, membranes were incubated with goat F(ab')2 anti-rabbit lgG alkaline phosphatase and signals were detected using the Tropix WesternStar method.

Phosphatase Stripping: Extracts prepared from cdk5 +/- mouse brain lysates were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to PVDF. The membrane was treated with lambda phosphatase, then incubated with either FAK pan antibody



Western blot - Anti-FAK (phospho S732) antibody (ab4792)

Influence of cdk5: Extracts prepared from cdk5 +/- (1, 3) and cdk5 -/- (2, 4) mouse brain lysates were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to PVDF. The membrane was incubated with either FAK pan antibody (1, 2), or with 0.34 µg/mL ab4792 antibody (3, 4). After washing, membranes were incubated with goat F(ab')2 anti-rabbit IgG alkaline phosphatase and signals were detected using the Tropix WesternStar method. The data show that cdk5 is essential for phosphorylation of FAK at serine 732. Other kinases appear to phosphorylate FRNK on this site. Influence of cdk5: Extracts prepared from cdk5 +/- (1, 3) and cdk5 -/- (2, 4) mouse brain lysates were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to PVDF. The membrane was incubated with either FAK pan antibody (1, 2), or with 0.34 µg/mL ab4792 antibody (3, 4). After washing, membranes were incubated with goat F(ab')2 anti-rabbit lgG alkaline phosphatase and signals were de

Please note: All products are "FOR RESEARCH USE ONLY, NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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