

Recombinant human FAK protein ab105909

[1 References](#) [5 Images](#)

Description

Product name	Recombinant human FAK protein
Biological activity	The Specific activity of ab105909 was determined to be 28 nmol/min/mg.
Purity	> 85 % SDS-PAGE. Purity was determined to be >85% by densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	<u>Q05397</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	140 kDa
Amino acids	1 to 1052
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab105909** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Liquid
Additional notes	<u>ab204877</u> (Poly (4:1 Glu, Tyr) peptide) can be utilized as a substrate for assessing kinase activity Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
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pH: 7.50

Constituents: 0.307% Glutathione, 0.01% Triton-X-100, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

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.

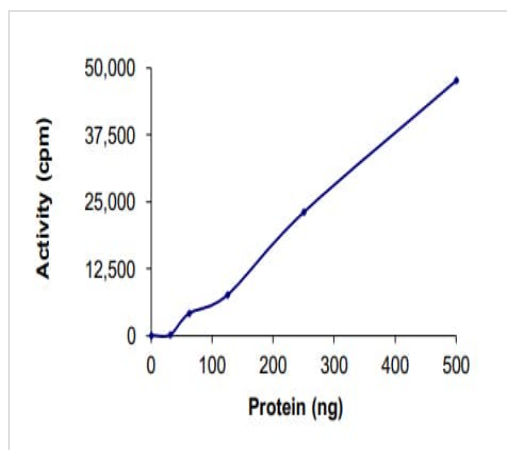
Post-translational modifications

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

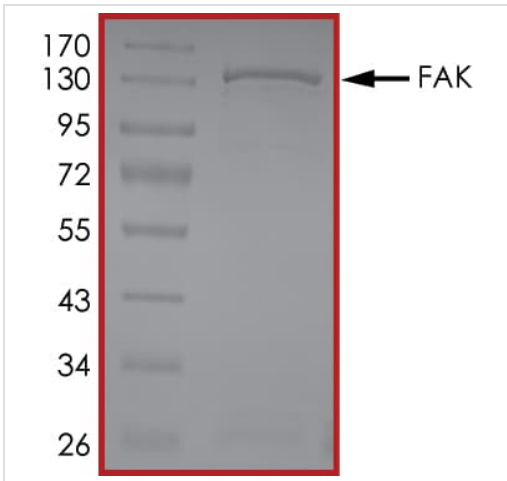
Cell junction > focal adhesion. Cell membrane. Constituent of focal adhesions.

Images



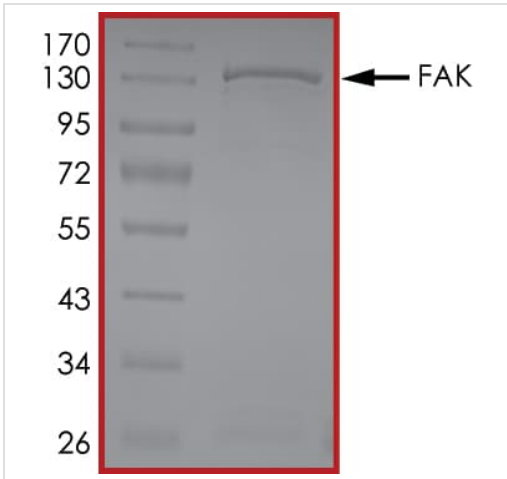
The specific activity of FAK (ab105909) was determined to be 24 nmol/min/mg as per activity assay protocol

Functional Studies - Recombinant human FAK protein (ab105909)



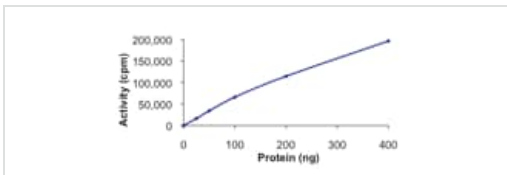
SDS PAGE analysis of ab105909

SDS-PAGE - Recombinant human FAK protein (ab105909)



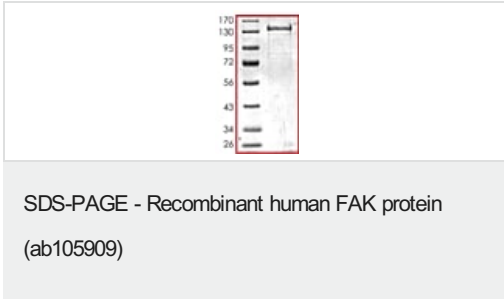
SDS PAGE analysis of ab105909

SDS-PAGE - Recombinant human FAK protein (ab105909)



Kinase Assay demonstrating specific activity of ab105909.

Functional Studies - Recombinant human FAK protein (ab105909)



SDS-PAGE showing ab105909 at approximately 140kDa.

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