

Datasheet for ABIN6944715 **anti-FAK antibody**

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Overview

Quantity:	100 µL
Target:	FAK (PTK2)
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This FAK antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS)

Product Details

Immunogen:	Recombinant human FAK between 700 to 800 amino acids
Clone:	2F4
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	FAK (PTK2)
Alternative Name:	PTK2 (PTK2 Products)

Target Details

Background:	Synonyms: Focal adhesion kinase 1, Focal adhesion kinase-related nonkinase, Protein phosphatase 1 regulatory subunit 71, Protein-tyrosine kinase 2, p125FAK, pp125FAK, FADK 1, FRNK, PPP1R71, PTK2 Background: Non-receptor protein-tyrosine kinase that plays an essential role in regulating cell migration, adhesion, spreading, reorganization of the actin cytoskeleton, formation and disassembly of focal adhesions and cell protrusions, cell cycle progression, cell proliferation and apoptosis. Required for early embryonic development and placenta development. Required for embryonic angiogenesis, normal cardiomyocyte migration and proliferation, and normal heart development. Regulates axon growth and neuronal cell migration, axon branching and synapse formation, required for normal development of the nervous system. Plays a role in osteogenesis and differentiation of osteoblasts. Functions in integrin signal transduction, but also in signaling downstream of numerous growth factor receptors, G-protein coupled receptors (GPCR), EPHA2, netrin receptors and LDL receptors. Forms multisubunit signaling complexes with SRC and SRC family members upon activation, this leads to the phosphorylation of additional tyrosine residues, creating binding sites for scaffold proteins, effectors and substrates. Regulates numerous signaling pathways. Promotes activation of phosphatidylinositol 3-kinase and the AKT1 signaling cascade. Promotes activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling cascade. Promotes localized and transient activation of guanine nucleotide exchange factors (GEFs) and GTPase-activating proteins (GAPs), and thereby modulates the activity of Rho family GTPases. Signaling via CAS family members mediates activation of RAC1. Recruits the ubiquitin ligase MDM2 to P53/TP53 in the nucleus, and thereby regulates P53/TP53 activity, P53/TP53 ubiquitination and proteasomal degradation. Phosphorylates SRC, this increases SRC kinase activity. Phosphorylates ACTN1, ARHGEF7, GRB7, RET and WASL. Promotes phosphorylation of PXN and STAT1, most likely PXN and STAT1 are phosphorylated by a SRC family kinase that is recruited to autophosphorylated PTK2/FAK1, rather than by PTK2/FAK1 itself. Promotes phosphorylation of BCAR1, GIT2 and SHC1, this requires both SRC and PTK2/FAK1. Promotes phosphorylation of BMX and PIK3R1. Isoform 6 (FRNK) does not contain a kinase domain and inhibits PTK2/FAK1 phosphorylation and signaling. Its enhanced expression can attenuate the nuclear accumulation of LPXN and limit its ability to enhance serum response factor (SRF)-dependent gene transcription.
Gene ID:	5747
UniProt:	Q05397
Pathways:	Response to Growth Hormone Stimulus , CXCR4-mediated Signaling Events , Smooth Muscle Cell Migration , Signaling of Hepatocyte Growth Factor Receptor , VEGF Signaling

Application Details

Application Notes:	WB 1:300-5000
	FCM 1:20-100
	IHC-P 1:200-400
	IF(IHC-P) 1:50-200
	IF(ICC) 1:50-200

Restrictions:	For Research Use only
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Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C for 12 months.
Expiry Date:	12 months