

Anti-Focal Adhesion Kinase (pS843) Antibody

Rabbit polyclonal antibody to Focal Adhesion Kinase (pS843) Catalog # AP61180

Product Information

ApplicationWBPrimary AccessionQ05397Other AccessionP34152

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW119233

Additional Information

Gene ID 5747

Other Names FAK; FAK1; Focal adhesion kinase 1; FADK 1; Focal adhesion kinase-related

nonkinase; FRNK; Protein phosphatase 1 regulatory subunit 71; PPP1R71;

Protein-tyrosine kinase 2; p125FAK; pp125FAK

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the

C-term region of human Focal Adhesion Kinase (pS843). The exact sequence is

proprietary.

Dilution WB~~WB (1/500 - 1/1000)

Format Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30%

glycerol, and 0.09% (W/V) sodium azide.

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name PTK2 (HGNC:9611)

Synonyms FAK, FAK1

Function 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. Phosphorylates NEDD9 following integrin stimulation (PubMed: 9360983). 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.

Cellular Location

Cell junction, focal adhesion. Cell membrane

{ECO:0000250|UniProtKB:Q00944}; Peripheral membrane protein

{ECO:0000250|UniProtKB:Q00944}; Cytoplasmic side

{ECO:0000250|UniProtKB:Q00944}. Cytoplasm, perinuclear region.

Cytoplasm, cell cortex. Cytoplasm, cytoskeleton

{ECO:0000250 | UniProtKB:O35346}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cytoplasm, cytoskeleton, cilium basal

body Cytoplasm Note=Constituent of focal adhesions. Detected at

microtubules {ECO:0000250 | UniProtKB:P34152}

Tissue Location

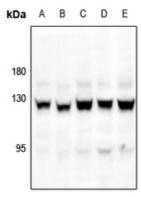
Detected in B and T-lymphocytes. Isoform 1 and isoform 6 are detected in lung fibroblasts (at protein level) Ubiquitous. Expressed in epithelial cells (at protein level) (PubMed:31630787).

Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Focal Adhesion Kinase (pS843). The exact sequence is proprietary.

Images

Western blot analysis of Focal Adhesion Kinase (pS843) expression in A549 (A), HepG2 (B), Hela (C), NIH3T3 (D), H9C2 (E) whole cell lysates.



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