

Product datasheet for **TA385088**

FAK (PTK2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	WB: 1/500-1/2000 IHC: 1/100-1/300 ELISA: 1/5000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized peptide derived from human FAK. AA range:373-422
Formulation:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Concentration:	lot specific
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Observed MW (kDa):119
Gene Name:	protein tyrosine kinase 2
Database Link:	Entrez Gene 5747 Human Q05397



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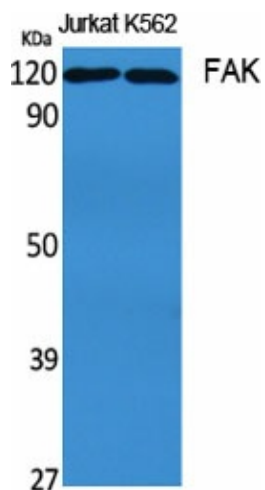
Background:

Swiss-Prot Acc.Q05397. 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.

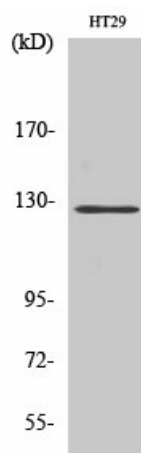
Synonyms:

FADK; FAK; FAK1; FRNK; pp125FAK

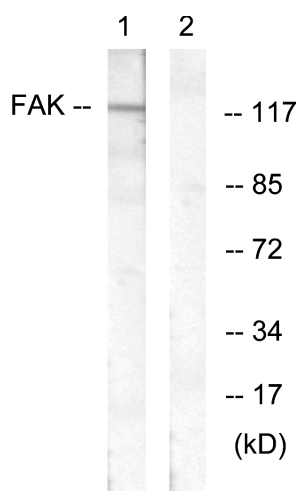
Product images:



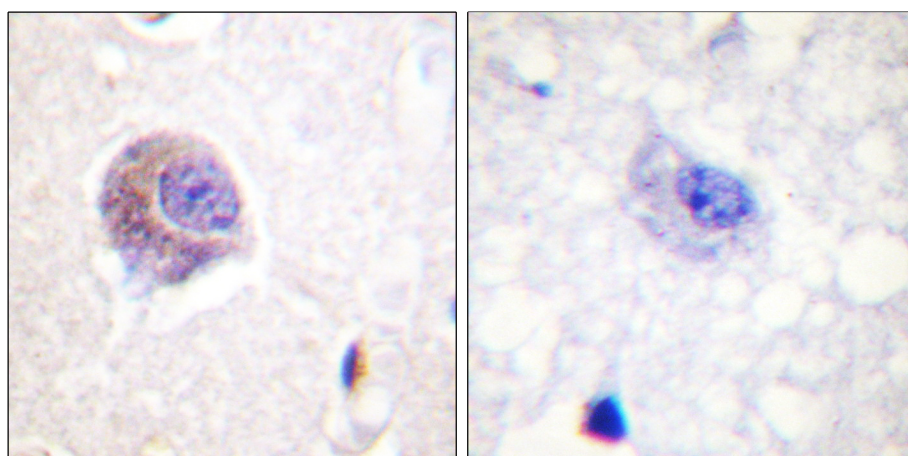
Western blot analysis of FAK in various lysates using FAK antibody.



Western blot analysis of FAK in HT-29 lysates using FAK antibody.



Western blot analysis of FAK in HeLa lysates treated with EGF using FAK antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded Human brain tissue using FAK antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval. Sample with blocking peptide on the right.