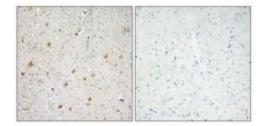


Anti-FGF-1 antibody





Description Rabbit polyclonal to FGF-1.

Model STJ93060

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IHC

Immunogen Synthesized peptide derived from human FGF-1.

Immunogen Region Internal

Gene ID 2246

Gene Symbol FGF1

Dilution range IHC 1:100-1:300ELISA 1:10000

Specificity FGF-1 Polyclonal Antibody detects endogenous levels of FGF-1 protein.

Tissue Specificity Predominantly expressed in kidney and brain. Detected at much lower levels

in heart and skeletal muscle.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Fibroblast growth factor 1 FGF-1 Acidic fibroblast growth factor aFGF

Endothelial cell growth factor Heparin-binding growth factor 1 HBGF-1

Molecular Weight 17.46 kDa

Clonality Polyclonal

Unconjugated Conjugation

Isotype IgG

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. **Formulation**

1 mg/ml Concentration

Store at -20°C, and avoid repeat freeze-thaw cycles. **Storage Instruction**

Database Links HGNC:3665OMIM:131220

Fibroblast growth factor 1 FGF-1 Acidic fibroblast growth factor aFGF **Alternative Names**

Endothelial cell growth factor Heparin-binding growth factor 1 HBGF-1

Function Plays an important role in the regulation of cell survival, cell division,

> angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation via sequential autophosphorylation on tyrosine residues which act as docking sites for interacting proteins, leading to the activation of several signaling cascades. Binds to integrin ITGAV:ITGB3. Its binding to integrin, subsequent ternary complex formation with integrin and FGFR1, and the recruitment of PTPN11 to the complex are essential for FGF1 signaling. Induces the phosphorylation and activation of FGFR1, FRS2, MAPK3/ERK1, MAPK1/ERK2 and AKT1.

Can induce angiogenesis.

Cellular Localization Secreted. Cytoplasm. Cytoplasm, cell cortex. Cytoplasm, cytosol. Nucleus.

> Lacks a cleavable signal sequence. Within the cytoplasm, it is transported to the cell membrane and then secreted by a non-classical pathway that requires Cu(2+) ions and S100A13. Secreted in a complex with SYT1. Binding of exogenous FGF1 to FGFR facilitates endocytosis followed by translocation of FGF1 across endosomal membrane into the cytosol. Nuclear import from the cytosol requires the classical nuclear import machinery, involving proteins

KPNA1 and KPNB1, as well as LRRC59.

Post-translational **Modifications**

In the nucleus, phosphorylated by PKC/PRKCD.

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