10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-FGF1 Antibody

Rabbit polyclonal antibody to FGF1
Catalog # AP61406

Product Information

Application	WB, IHC
Primary Accession	P05230
Other Accession	P61148
Reactivity	Human, Mouse, Rat, Pig, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17460

Additional Information

Gene ID	2246
Other Names	FGFA; Fibroblast growth factor 1; FGF-1; Acidic fibroblast growth factor; aFGF; Endothelial cell growth factor; ECGF; Heparin-binding growth factor 1; HBGF-1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human FGF1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200)
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

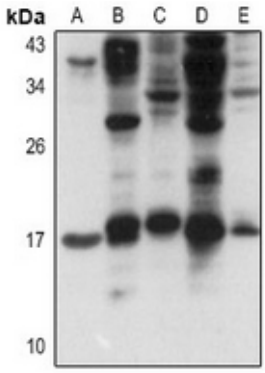
Name	FGF1
Synonyms	FGFA
Function	Plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as a potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 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 (PubMed:18441324, PubMed:20422052). Can induce angiogenesis (PubMed:23469107).
Cellular Location	Secreted. Cytoplasm. Cytoplasm, cell cortex. Cytoplasm, cytosol. Nucleus. Note=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 (By similarity). 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
Tissue Location	Predominantly expressed in kidney and brain. Detected at much lower levels in heart and skeletal muscle

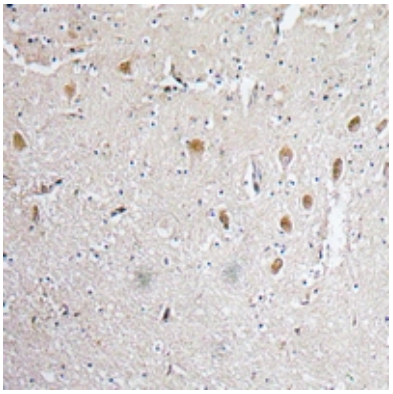
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human FGF1. The exact sequence is proprietary.

Images



Western blot analysis of FGF1 expression in H1688 (A), mouse kidney (B), mouse brain (C), rat kidney (D), rat brain (E) whole cell lysates.



Immunohistochemical analysis of FGF1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.