

Anti-FGF1 Picoband Antibody
Catalog # ABO12629**Specification**

Anti-FGF1 Picoband Antibody - Product Information

Application	WB, IHC-P, E
Primary Accession	P05230
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Fibroblast growth factor 1(FGF1) detection. Tested with WB, IHC-P, ELISA in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FGF1 Picoband Antibody - Additional Information

Gene ID 2246

Other Names

Fibroblast growth factor 1, FGF-1, Acidic fibroblast growth factor, aFGF, Endothelial cell growth factor, ECGF, Heparin-binding growth factor 1, HBGF-1, FGF1, FGFA

Calculated MW

17460 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
ELISA , 0.1-0.5 µg/ml, Human, -Western blot, 0.1-0.5 µg/ml, Rat, Human

Subcellular 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 (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 Specificity

Predominantly expressed in kidney and brain. Detected at much lower levels in heart and skeletal muscle. .

Protein Name

Fibroblast growth factor 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human FGF1 recombinant protein (Position: F16-D155). Human FGF1 shares 96.4% amino acid (aa) sequence identity with both mouse and rat FGF1.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-FGF1 Picoband Antibody - 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](http://www.uniprot.org/citations/18441324), PubMed: [20422052](http://www.uniprot.org/citations/20422052)). Can induce angiogenesis (PubMed: [23469107](http://www.uniprot.org/citations/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

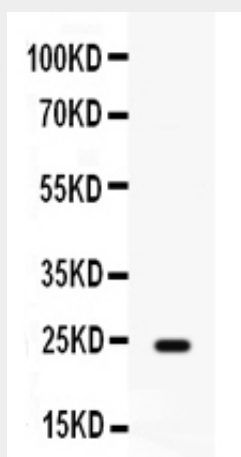
Predominantly expressed in kidney and brain. Detected at much lower levels in heart and skeletal muscle

Anti-FGF1 Picoband Antibody - Protocols

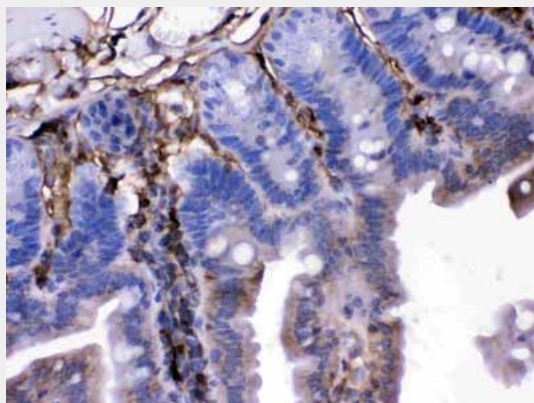
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

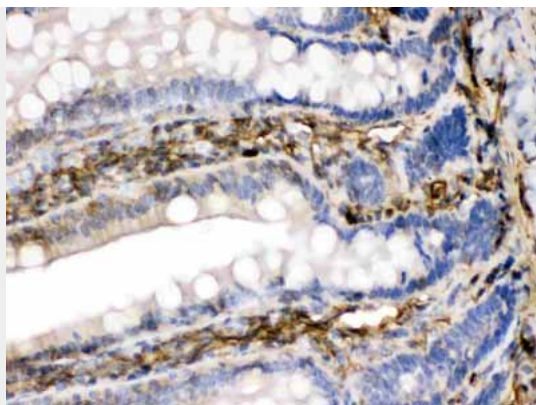
Anti-FGF1 Picoband Antibody - Images



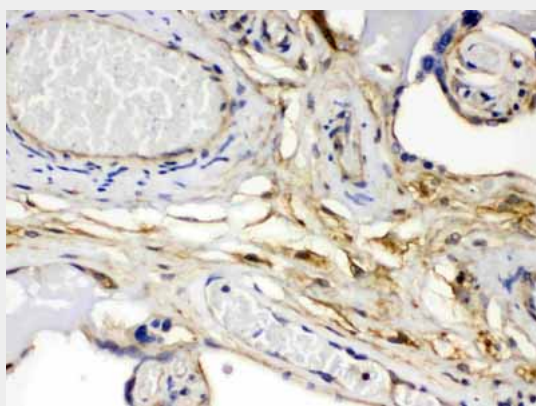
Western blot analysis of FGF1 expression in rat cardiac muscle extract (lane 1). FGF1 at 24KD was detected using rabbit anti- FGF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12629) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .



FGF1 was detected in paraffin-embedded sections of mouse intestine tissues using rabbit anti-FGF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12629) at 1 µg/mL. The immunohistochemical section was developed using SABC method .



FGF1 was detected in paraffin-embedded sections of rat intestine tissues using rabbit anti- FGF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12629) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



FGF1 was detected in paraffin-embedded sections of human placenta tissues using rabbit anti- FGF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12629) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Anti-FGF1 Picoband Antibody - Background

Fibroblast growth factor 1 (acidic), also known as FGF1/ECGF/HBGF1, is a human gene which is mapped to 5q31. The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It also acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis.