

Rabbit Anti-FGFR4 antibody

SL0676R

Product Name FGFR4

Chinese Name 成纤维细胞生长因子受体 4 抗体

Alias Fibroblast growth factor receptor 4; CD 334; CD334; CD334 antigen; fc13h 10; fc13h10; Fgfr 4; Hydroxyaryl protein kinase; JTK 2; JTK2; MGC20292; Protein tyrosine kinase; TKF; Tyrosine kinase related to fibroblast growth factor receptor; Tyrosylprotein kinase; FGFR4_HUMAN.

Research Area Tumour Cardiovascular Neurobiology Signal transduction Stem cells

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Rat, (predicted: Mouse, Dog,)

Applications IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 86kDa

Cellular localization The cell membrane Secretory protein

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human FGFR4: 1-100/762 <Extracellular>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

The protein encoded by this gene is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein would consist of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. The genomic organization of this gene, compared to members 1-3, encompasses 18 exons rather than 19 or 20. Although alternative splicing has been observed, there is no evidence that the C-terminal half of the IgIII domain of this protein varies between three alternate forms, as indicated for members 1-3. This particular family member preferentially binds acidic fibroblast growth factor and, although its specific function is unknown, it is overexpressed in gynecological tumor samples, suggesting a role in breast and ovarian tumorigenesis. [provided by RefSeq, Jul 2008]

Function:

Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down-regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 and FRS2. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Promotes SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Mutations that lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling.

Product Detail

Subunit:

Monomer. Homodimer after ligand binding. Interacts with FGF1, FGF2, FGF4, FGF6, FGF8, FGF9, FGF16, FGF17, FGF18, FGF19, FGF21 and FGF23 (in vitro). Binding affinity for FGF family members is enhanced by interactions between FGFs and heparan sulfate proteoglycans. Interacts with KLB; this strongly increases the affinity for FGF19 and FGF23. Affinity for FGF19 is strongly increased by KLB and sulfated glycosaminoglycans. KLB and KL both interact with the core-glycosylated FGFR4 in the endoplasmic reticulum and promote its degradation, so that only FGFR4 with fully mature N-glycans is expressed at the cell surface. Identified in a complex with NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, GAP43 and CTTN. Interacts with MMP14 and HIP1.

Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Endosome. Endoplasmic reticulum.
Note=Internalized from the cell mebrane to recycling endosomes, and from there back to the cell membrane.

Isoform 2: Secreted.

Tissue Specificity:

Expressed in gastrointestinal epithelial cells, pancreas, and gastric and pancreatic cancer cell lines

Post-translational modifications:

N-glycosylated. Full maturation of the glycan chains in the Golgi is essential for high affinity interaction with FGF19.

Ubiquitinated. Subject to proteasomal degradation when not fully glycosylated.

Autophosphorylated. Binding of FGF family members together with heparan sulfate proteoglycan or heparin promotes receptor dimerization and autophosphorylation on tyrosine residues. Autophosphorylation occurs in trans between the two FGFR molecules present in the dimer.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily.

Contains 3 Ig-like C2-type (immunoglobulin-like) domains.

Contains 1 protein kinase domain.

SWISS:

P22455

Gene ID:

2264

Database links:

[Entrez Gene: 2264](#) Human

[Entrez Gene: 14186](#) Mouse

[Omim: 134935](#) Human

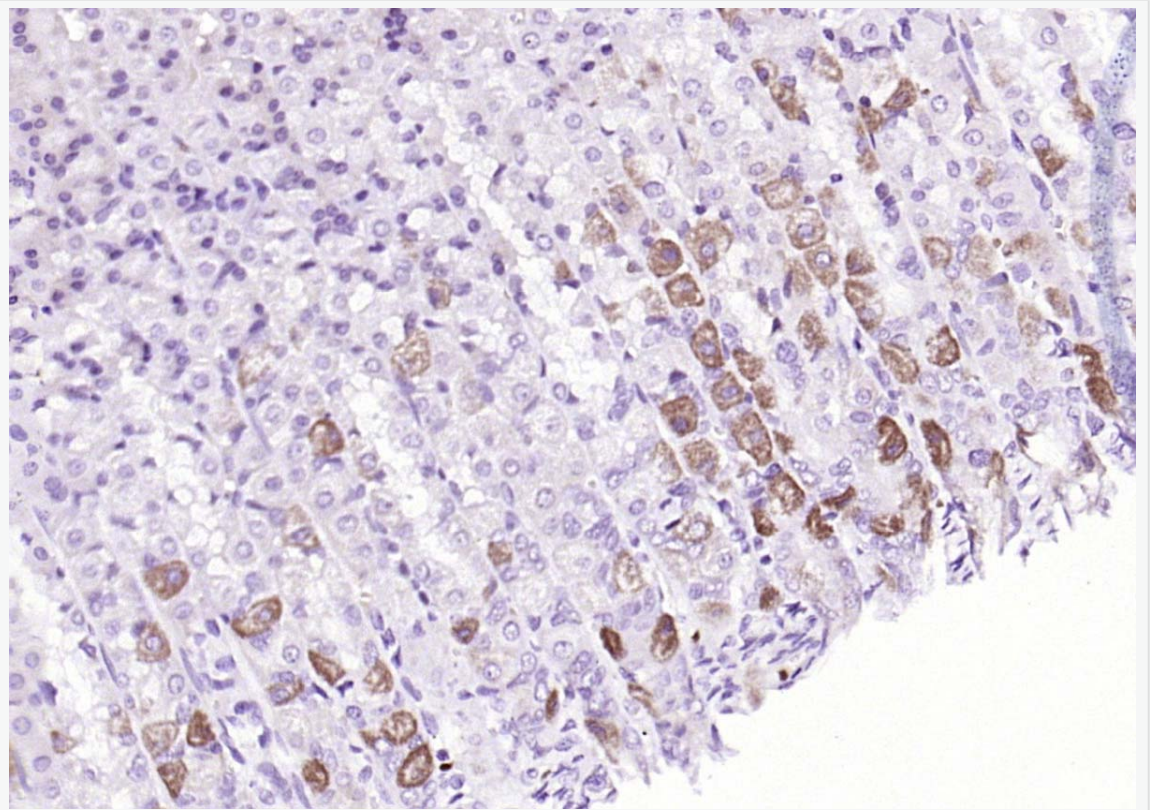
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[SwissProt: Q03142](#) Mouse

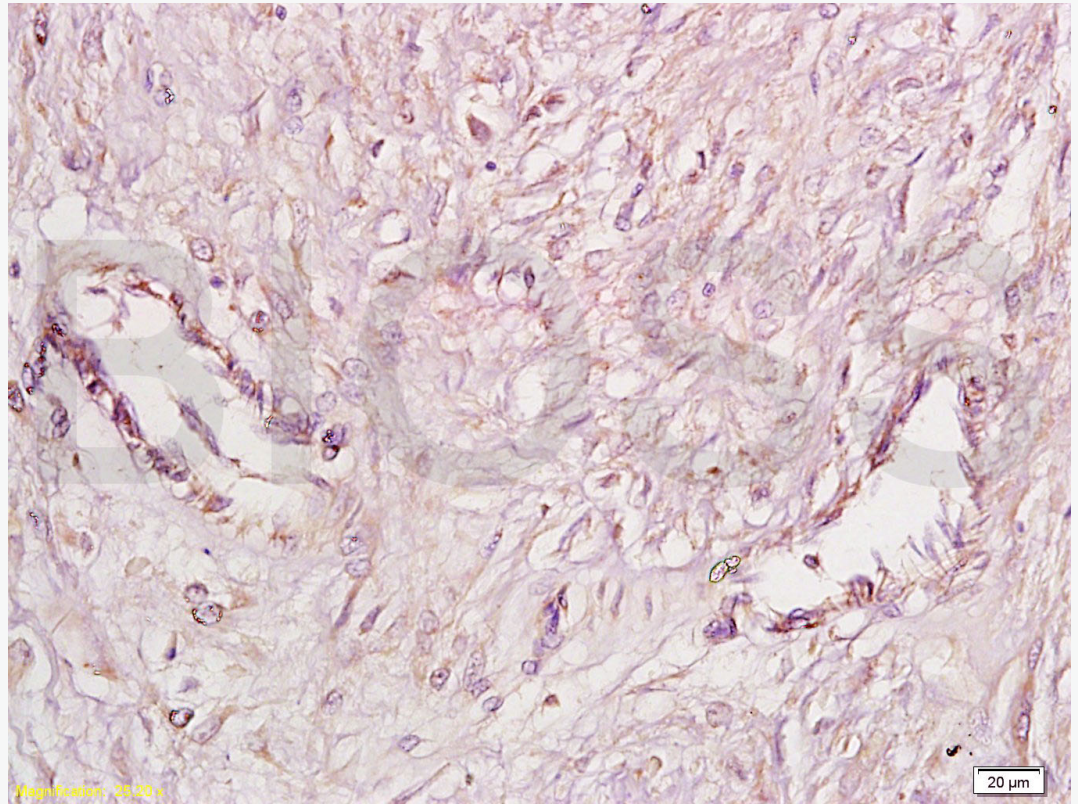
[Unigene: 165950](#) Human

[Unigene: 276715](#) Mouse

**Product
Picture**



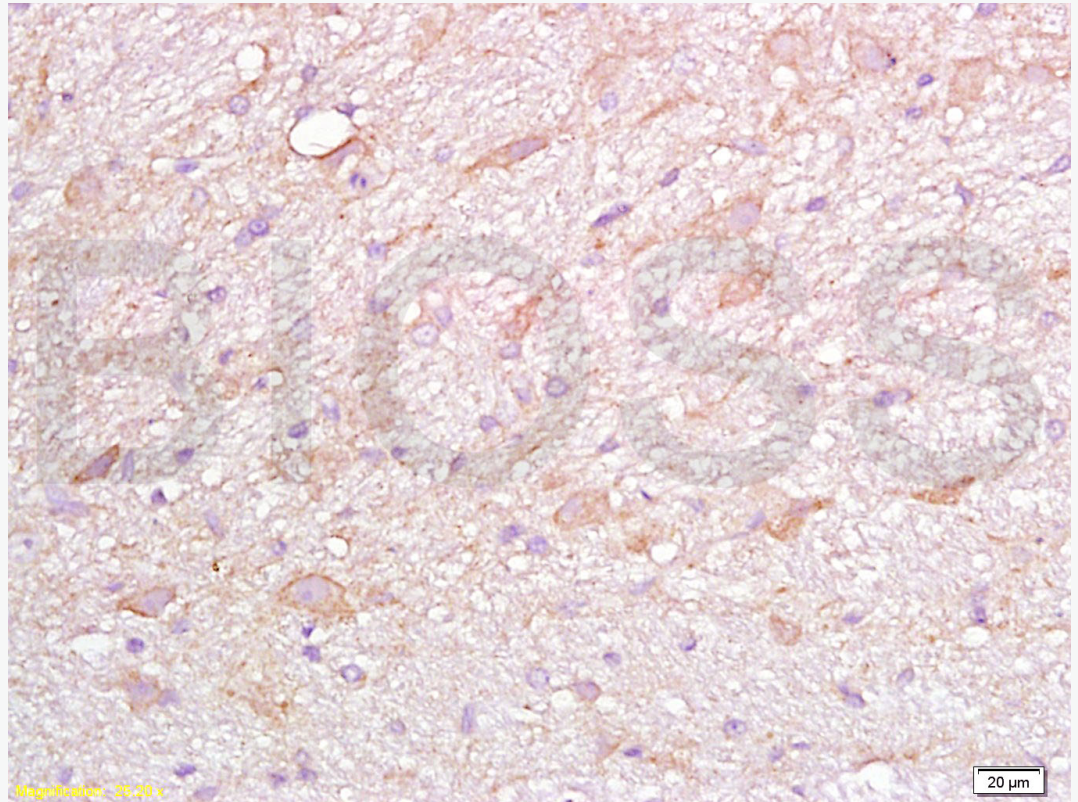
Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FGFR4) Polyclonal Antibody, Unconjugated (SL0676R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: human cervical carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-FGFR4 Polyclonal Antibody, Unconjugated(SL0676R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-FGFR4 Polyclonal Antibody, Unconjugated(SL0676R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining