

## FGFR-5 (C-20): sc-18637

### BACKGROUND

Acidic and basic fibroblast growth factors (FGFs) are members of a family of multifunctional polypeptide growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuro-ectodermal origin. Like other growth factors, FGFs act by binding and activating specific cell surface receptors. A total of six members of the FGF receptor family have been identified and cloned. These include the Flg receptor (FGFR-1), the Bek receptor (FGFR-2) and FGFR-3-6. These receptors usually contain an extracellular ligand-binding region containing three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic tyrosine kinase domain. However, FGFR-5 lacks the cytoplasmic kinase domain. FGFR-5 is expressed in a broad range of tissues, including kidney, brain and lung. It is preferentially expressed in pancreas, where it may play a role in the regulation of some pancreatic function.

### REFERENCES

1. Moscatelli, D., et al. 1987. Mr 25,000 heparin-binding protein from guinea pig brain is a high molecular weight form of basic fibroblast growth factor. *Proc. Natl. Acad. Sci. USA* 84: 5778-5782.
2. Rifkin, D.B., et al. 1989. Recent developments in the cell biology of fibroblast growth factor. *J. Cell Biol.* 109: 1-6.
3. Dionne, C.A., et al. 1990. Cloning and expression of two distinct high-affinity receptors cross-reacting with acidic and basic fibroblast growth factors. *EMBO J.* 9: 2685-2692.
4. Keegan, K., et al. 1991. Isolation of an additional member of the fibroblast growth factor receptor family, FGFR-3. *Proc. Natl. Acad. Sci. USA* 88: 1095-1099.

### CHROMOSOMAL LOCATION

Genetic locus: FGFR1 (human) mapping to 4p16.3; Fgfr1 (mouse) mapping to 5 F.

### SOURCE

FGFR-5 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FGFR-5 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

FGFR-5 (C-20) is recommended for detection of FGFR-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FGFR-5 (K-20) is also recommended for detection of FGFR-5 in additional species, including bovine.

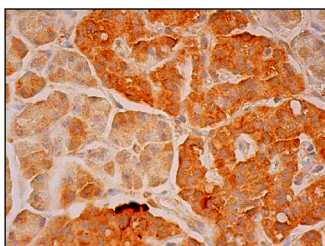
Suitable for use as control antibody for FGFR-5 siRNA (h): sc-39967, FGFR-5 siRNA (m): sc-39968, FGFR-5 shRNA Plasmid (h): sc-39967-SH, FGFR-5 shRNA Plasmid (m): sc-39968-SH, FGFR-5 shRNA (h) Lentiviral Particles: sc-39967-V and FGFR-5 shRNA (m) Lentiviral Particles: sc-39968-V.

Molecular Weight of FGFR-5: 53 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

### DATA



FGFR-5 (C-20): sc-18637. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of exocrine glandular cells and Islets of Langerhans.

### SELECT PRODUCT CITATIONS

1. Gerber, S.D., et al. 2009. The murine Fgfr1 receptor is essential for the development of the metanephric kidney. *Dev. Biol.* 335: 106-119.
2. Steinberg, F., et al. 2010. Rapid fusion and syncytium formation of heterologous cells upon expression of the FGFR1 receptor. *J. Biol. Chem.* 285: 37704-37715.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.