

**Fgfr3 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20744c****Specification**

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**Fgfr3 Antibody (Center) - Product Information**

|                   |                                                 |
|-------------------|-------------------------------------------------|
| Application       | WB,E                                            |
| Primary Accession | <a href="#">P22607</a>                          |
| Other Accession   | <a href="#">P22607</a> , <a href="#">Q61851</a> |
| Reactivity        | Human                                           |
| Predicted         | Mouse                                           |
| Host              | Rabbit                                          |
| Clonality         | Polyclonal                                      |
| Isotype           | Rabbit IgG                                      |

**Fgfr3 Antibody (Center) - Additional Information****Gene ID** 2261**Other Names**

Fibroblast growth factor receptor 3, FGFR-3, Heparin-binding growth factor receptor, CD333, Fgfr3, Mfr3, Sam3

**Target/Specificity**

This Fgfr3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 449-482 amino acids from the Central region of human Fgfr3.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Fgfr3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**Fgfr3 Antibody (Center) - Protein Information****Name** FGFR3**Synonyms** JTK4

**Function** Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation and apoptosis. Plays an essential role in the regulation of chondrocyte differentiation, proliferation and apoptosis, and is required for normal skeleton development. Regulates both osteogenesis and postnatal bone mineralization by osteoblasts. Promotes apoptosis in chondrocytes, but can also promote cancer cell proliferation. Required for normal development of the inner ear. Phosphorylates PLCG1, CBL 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. Plays a role in the regulation of vitamin D metabolism. Mutations that lead to constitutive kinase activation or impair normal FGFR3 maturation, internalization and degradation lead to aberrant signaling. Over-expressed or constitutively activated FGFR3 promotes activation of PTPN11/SHP2, STAT1, STAT5A and STAT5B. Secreted isoform 3 retains its capacity to bind FGF1 and FGF2 and hence may interfere with FGF signaling.

#### **Cellular Location**

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle. Endoplasmic reticulum. Note=The activated receptor is rapidly internalized and degraded. Detected in intracellular vesicles after internalization of the autophosphorylated receptor [Isoform 3]: Secreted.

#### **Tissue Location**

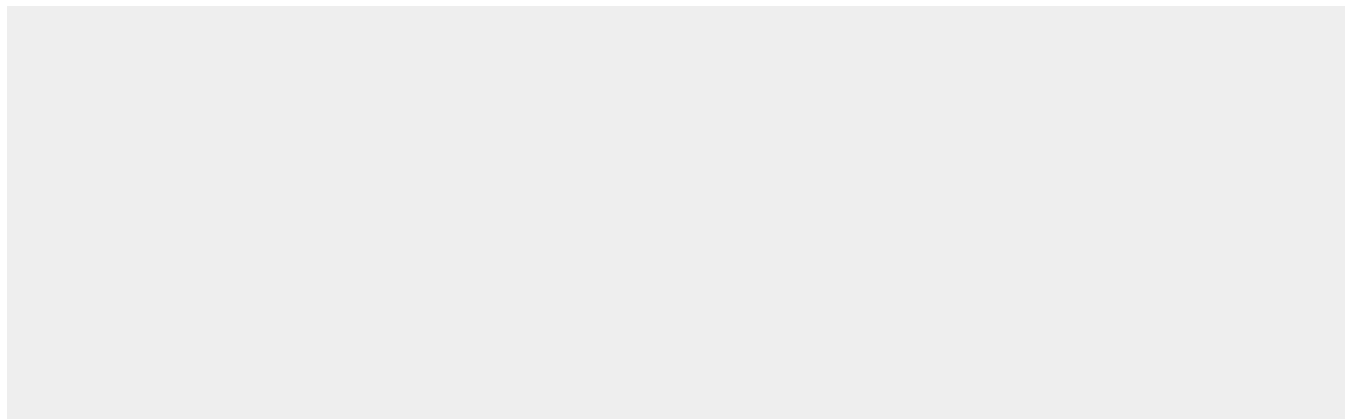
Expressed in brain, kidney and testis. Very low or no expression in spleen, heart, and muscle. In 20- to 22-week old fetuses it is expressed at high level in kidney, lung, small intestine and brain, and to a lower degree in spleen, liver, and muscle. Isoform 2 is detected in epithelial cells. Isoform 1 is not detected in epithelial cells. Isoform 1 and isoform 2 are detected in fibroblastic cells.

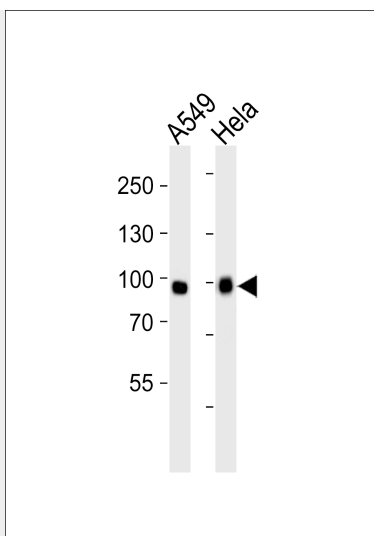
### **Fgfr3 Antibody (Center) - Protocols**

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](#)

### **Fgfr3 Antibody (Center) - Images**





Western blot analysis of lysates from A549, HeLa cell line (from left to right), using Fgfr3 Antibody (Center)(Cat. #AP20744c). AP20744c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

#### **Fgfr3 Antibody (Center) - Background**

Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation and apoptosis. Plays an essential role in the regulation of chondrocyte differentiation, proliferation and apoptosis, and is required for normal skeleton development. Regulates both osteogenesis and postnatal bone mineralization by osteoblasts. Promotes apoptosis in chondrocytes, but can also promote cancer cell proliferation. Required for normal development of the inner ear. Phosphorylates PLCG1, CBL 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. Plays a role in the regulation of vitamin D metabolism. Mutations that lead to constitutive kinase activation or impair normal FGFR3 maturation, internalization and degradation lead to aberrant signaling. Over-expressed or constitutively activated FGFR3 promotes activation of STAT1, STAT5A and STAT5B. Plays a role in postnatal lung development.

#### **Fgfr3 Antibody (Center) - References**

- Ornitz D.M.,et al.J. Biol. Chem. 267:16305-16311(1992).
- Katoh O.,et al.Cancer Res. 53:1136-1141(1993).
- Chellaiah A.T.,et al.J. Biol. Chem. 269:11620-11627(1994).
- Deng C.,et al.Cell 84:911-921(1996).
- Ornitz D.M.,et al.J. Biol. Chem. 271:15292-15297(1996).