

# Anti-FGFR3 Antibody

Rabbit polyclonal antibody to FGFR3

Catalog # AP59553

## Product Information

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|--------------------------|--|
| <b>Application</b>       | WB, IHC                                    |
| <b>Primary Accession</b> | <a href="#">P22607</a>                     |
| <b>Other Accession</b>   | <a href="#">Q61851</a>                     |
| <b>Reactivity</b>        | Human, Mouse, Rat, Pig, Bovine, Drosophila |
| <b>Host</b>              | Rabbit                                     |
| <b>Clonality</b>         | Polyclonal                                 |
| <b>Calculated MW</b>     | 87710                                      |

## Additional Information

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|---------------------------|---|
| <b>Gene ID</b>            | 2261  |
| <b>Other Names</b>        | JTK4; Fibroblast growth factor receptor 3; FGFR-3; CD333  |
| <b>Target/Specificity</b> | Recognizes endogenous levels of FGFR3 protein.  |
| <b>Dilution</b>           | WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)                      |
| <b>Format</b>             | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide. |
| <b>Storage</b>            | Store at -20 °C.Stable for 12 months from date of receipt   |

## Protein Information

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|                 |   |
|-----------------|---|
| <b>Name</b>     | FGFR3   |
| <b>Synonyms</b> | JTK4  |
| <b>Function</b> | 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.

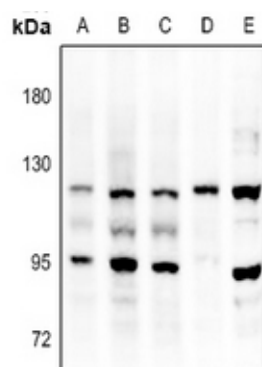
### Tissue Location

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.

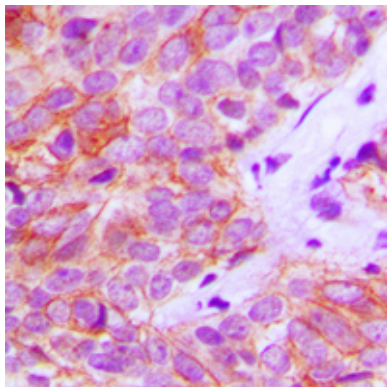
## Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human FGFR3. The exact sequence is proprietary.

## Images



Western blot analysis of FGFR3 expression in A549 (A), HEK293T (B), HCT116 (C), PC12 (D), CT26 (E) whole cell lysates.



Immunohistochemical analysis of FGFR3 staining in human breast cancer 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.

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