

Anti-FGFR3 Antibody

Catalog # ABO11454

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P22607
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Fibroblast growth factor receptor 3(FGFR3) detection. Tested with WB, IHC-P, ICC in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2261
Other Names	Fibroblast growth factor receptor 3, FGFR-3, 2.7.10.1, CD333, FGFR3, JTK4
Calculated MW	87710
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, Rat Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Rat, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat
Subcellular Localization	Isoform 1: Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle. Endoplasmic reticulum. The activated receptor is rapidly internalized and degraded. Detected in intracellular vesicles after internalization of the autophosphorylated receptor.
Tissue Specificity	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. .
Source	Eukaryota
Protein Name	Fibroblast growth factor receptor 3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human FGFR3(110-129aa RQRLTQRVLCHFVRVTDAP), different from the related rat sequence by two amino acids, and from the related mouse sequence by three amino acids.
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.
Sequence Similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily.

Protein Information

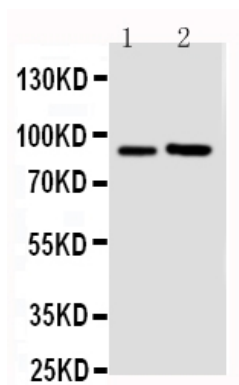
Name	FGFR3
Synonyms	JTK4
Function	Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation and apoptosis. Plays an essential role in the regulation of chondrocyte differentiation, proliferation 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.

Background

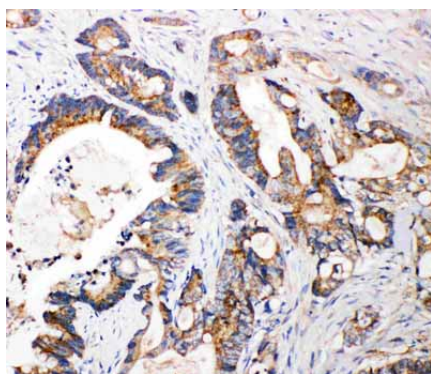
Fibroblast growth factor receptor 3, also known as CD333, is a protein that in humans is encoded by the FGFR3 gene. This gene encodes a member of the fibroblast growth factor receptor (FGFR) family, with its

amino acid sequence being highly conserved between members and among divergent species. The FGFR3 gene is mapped to the HD region on chromosome 4p16.3. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member binds acidic and basic fibroblast growth hormone and plays a role in bone development and maintenance. Mutations in this gene lead to craniosynostosis and multiple types of skeletal dysplasia.

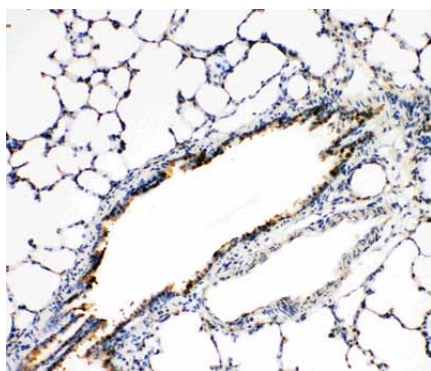
Images



Anti-FGFR3 antibody, ABO11454, Western blotting
Lane 1: U87 Cell Lysate
Lane 2: SGC Cell Lysate



Anti-FGFR3 antibody, ABO11454, IHC(P)
IHC(P): Human Intestinal Cancer Tissue



Anti-FGFR3 antibody, ABO11454, IHC(P)
IHC(P): Rat Lung Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.