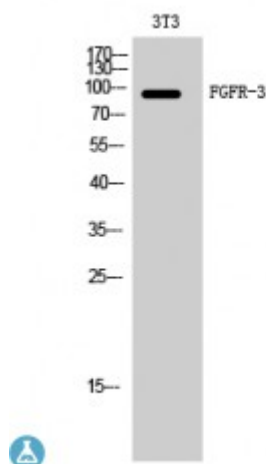


Anti-FGFR-3 antibody



Description	Rabbit polyclonal to FGFR-3.
Model	STJ93066
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human FGFR-3
Immunogen Region	100-180 aa, Internal
Gene ID	2261
Gene Symbol	FGFR3
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:10000
Specificity	FGFR-3 Polyclonal Antibody detects endogenous levels of FGFR-3 protein.
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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Fibroblast growth factor receptor 3 FGFR-3 CD antigen CD333

Molecular Weight	95 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:3690OMIM:100800
Alternative Names	Fibroblast growth factor receptor 3 FGFR-3 CD antigen CD333
Function	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 PTPN11/SHP2, STAT1, STAT5A and STAT5B. Secreted isoform 3 retains its capacity to bind FGF1 and FGF2 and hence may interfere with FGF signaling.
Sequence and Domain Family	The second and third Ig-like domains directly interact with fibroblast growth factors (FGF) and heparan sulfate proteoglycans.
Cellular 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.. Isoform 2: Cell membrane Isoform 3: Secreted.. Isoform 4: Cell membrane
Post-translational Modifications	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. Phosphorylation at Tyr-724 is essential for stimulation of cell proliferation and activation of PIK3R1, STAT1 and MAP kinase signaling. Phosphorylation at Tyr-760 is required for interaction with PIK3R1 and PLCG1. Ubiquitinated. Is rapidly ubiquitinated after ligand binding and autophosphorylation, leading to receptor internalization and degradation. Subject to both proteasomal and lysosomal degradation. N-glycosylated in the endoplasmic reticulum. The N-

glycan chains undergo further maturation to an Endo H-resistant form in the Golgi apparatus.

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