

Mouse Fgfr3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20744c

Product Information

WB, E
<u>Q61851</u>
Human
Rabbit
Polyclonal
Rabbit IgG
RB50590
87758

Additional Information

Other Names	Fibroblast growth factor receptor 3, FGFR-3, Heparin-binding growth factor receptor, CD333, Fgfr3, Mfr3, Sam3
Target/Specificity	This Mouse 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 Mouse Fgfr3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	Mouse Fgfr3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Fgfr3
Synonyms	Mfr3, Sam3
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 STAT1, STAT5A and STAT5B. Plays a role in postnatal lung development.
Cellular Location	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 (By similarity).
Tissue Location	In embryo, expressed in heart, lung, kidney, skin, head and liver but not in muscle. In adult, highest levels in brain Also expressed in liver, lung, kidney, testis, ovary and uterus. Very low levels in heart, thymus, spleen and muscle

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.

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).

Images

All lanes: Anti-Mouse Fgfr3 Antibody (Center) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band



size: 88 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

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