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Mouse Fgfr3 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP20744c

Specification

Mouse Fgfr3 Blocking Peptide (Center) - Product Information

Primary Accession	Q61851
Other Accession	P22607

Mouse Fgfr3 Blocking Peptide (Center) - Additional Information

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

Target/Specificity
The synthetic peptide sequence is selected from aa 449-462 of HUMAN Fgfr3

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Fgfr3 Blocking Peptide (Center) - Protein Information

Name Fgfr3

Synonyms Mfr3, Sam3

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,

Mouse Fgfr3 Blocking Peptide (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.

Mouse Fgfr3 Blocking Peptide (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).

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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

Mouse Fgfr3 Blocking Peptide (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides