

FGF Receptor / FGFR2 Antibody (aa471-520)

Rabbit Polyclonal Antibody Catalog # ALS14293

Specification

FGF Receptor / FGFR2 Antibody (aa471-520) - Product Information

Application WB
Primary Accession P21802

Reactivity Human, Mouse

Host Rabbit
Clonality Polyclonal
Calculated MW 92kDa KDa

FGF Receptor / FGFR2 Antibody (aa471-520) - Additional Information

Gene ID 2263

Other Names

Fibroblast growth factor receptor 2, FGFR-2, 2.7.10.1, K-sam, KGFR, Keratinocyte growth factor receptor, CD332, FGFR2, BEK, KGFR, KSAM

Target/Specificity

FGFR2 Antibody detects endogenous levels of total FGFR2 protein.

Reconstitution & Storage

Store at -20°C.

Precautions

FGF Receptor / FGFR2 Antibody (aa471-520) is for research use only and not for use in diagnostic or therapeutic procedures.

FGF Receptor / FGFR2 Antibody (aa471-520) - Protein Information

Name FGFR2

Synonyms BEK, KGFR, KSAM

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, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. 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





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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. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.

Cellular Location

Cell membrane; Single-pass type I membrane protein. Golgi apparatus. Cytoplasmic vesicle. Note=Detected on osteoblast plasma membrane lipid rafts. After ligand binding, the activated receptor is rapidly internalized and degraded [Isoform 3]: Cell membrane; Single-pass type I membrane protein. Note=After ligand binding, the activated receptor is rapidly internalized and degraded [Isoform 13]: Secreted.

Volume 50 μl

FGF Receptor / FGFR2 Antibody (aa471-520) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

FGF Receptor / FGFR2 Antibody (aa471-520) - Images



Western blot of extracts from A549 cells, using FGFR2 Antibody.

FGF Receptor / FGFR2 Antibody (aa471-520) - 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, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. 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





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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. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.

FGF Receptor / FGFR2 Antibody (aa471-520) - References

Dionne C.A., et al. EMBO J. 9:2685-2692(1990). Houssaint E., et al. Proc. Natl. Acad. Sci. U.S.A. 87:8180-8184(1990). Seno M., et al. Biochim. Biophys. Acta 1089:244-246(1991). Hattori Y., et al. Proc. Natl. Acad. Sci. U.S.A. 87:5983-5987(1990). Katoh M., et al. Proc. Natl. Acad. Sci. U.S.A. 89:2960-2964(1992).