

FGFR2 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP50193

Specification

FGFR2 Antibody - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW
Antigen Region

WB, IHC
P21802
Human, Mouse, Rat
Rabbit
Polyclonal
92 KDa
489-520

FGFR2 Antibody - Additional Information

Gene ID 2263

Other Names

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

Dilution

WB~~ 1:1000 IHC~~1:50-1:100

Format

Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions

-20°C

FGFR2 Antibody - 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 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

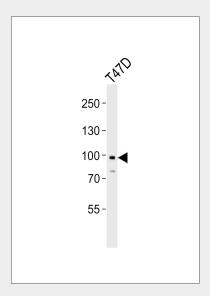
Cell membrane; Single-pass type I membrane protein. Golgi apparatus. Cytoplasmic vesicle. Note=Detected on osteoblast plasma membrane lipid rafts. After ligand binding, the activated receptor is rapidly internalized and degraded [Isoform 3]: Cell membrane; Single-pass type I membrane protein. Note=After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

FGFR2 Antibody - Protocols

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

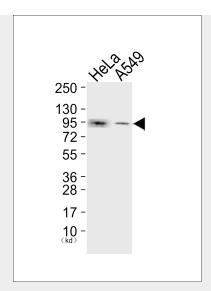
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FGFR2 Antibody - Images

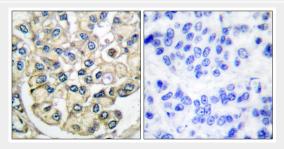


Western blot analysis of lysate from T47D cell line, using FGFR2 Antibody (C0191). C0191 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.





Western blot analysis of extracts from HeLa cells (Lane 1) and A549 cells (Lane 2), using FGFR2 Antibody. The lane on the left is treated with systhesized peptide.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using FGFR2 antibody.

FGFR2 Antibody - 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 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PlK3R1 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.

FGFR2 Antibody - 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).