

## FGFR1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20934a

### Specification

# FGFR1 Antibody (Center) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW WB, FC,E <u>P11362</u> <u>004589</u>, <u>P16092</u>, <u>P21804</u> Human, Mouse Chicken, Rat Rabbit Polyclonal Rabbit IgG 91868

## FGFR1 Antibody (Center) - Additional Information

Gene ID 2260

#### **Other Names**

Fibroblast growth factor receptor 1, FGFR-1, Basic fibroblast growth factor receptor 1, BFGFR, bFGF-R-1, Fms-like tyrosine kinase 2, FLT-2, N-sam, Proto-oncogene c-Fgr, CD331, FGFR1, BFGFR, CEK, FGFBR, FLG, FLT2, HBGFR

#### Target/Specificity

This FGFR1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 291-324 amino acids from the Central region of human FGFR1.

**Dilution** WB~~1:1000 FC~~1:25

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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**

FGFR1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

# FGFR1 Antibody (Center) - Protein Information

Name FGFR1



# Synonyms BFGFR, CEK, FGFBR, FLG, FLT2, HBGFR

**Function** Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of embryonic development, cell proliferation, differentiation and migration. Required for normal mesoderm patterning and correct axial organization during embryonic development, normal skeletogenesis and normal development of the gonadotropin-releasing hormone (GnRH) neuronal system. Phosphorylates PLCG1, FRS2, GAB1 and SHB. 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. Promotes phosphorylation of SHC1, STAT1 and PTPN11/SHP2. In the nucleus, enhances RPS6KA1 and CREB1 activity and contributes to the regulation of transcription. FGFR1 signaling is down-regulated by IL17RD/SEF, and by FGFR1 ubiquitination, internalization and degradation.

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Nucleus. Cytoplasm, cytosol. Cytoplasmic vesicle. Note=After ligand binding, both receptor and ligand are rapidly internalized. Can translocate to the nucleus after internalization, or by translocation from the endoplasmic reticulum or Golgi apparatus to the cytosol, and from there to the nucleus

### **Tissue Location**

Detected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are detected in foreskin fibroblast cell lines, however isoform 17, isoform 18 and isoform 19 are not detected in these cells.

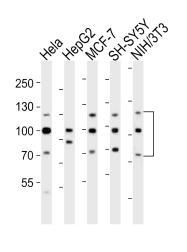
## FGFR1 Antibody (Center) - Protocols

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

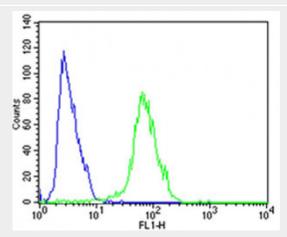
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

FGFR1 Antibody (Center) - Images





Western blot analysis of lysates from Hela, HepG2, MCF-7, SH-SY5Y, mouse NIH/3T3 cell line (from left to right), using FGFR1 Antibody (Center)(Cat. #AP20934a). AP20934a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Flow cytometric analysis of SH-SY5Y cells using FGFR1 Antibody (Center)(green, Cat#AP20934a) compared to an isotype control of rabbit IgG(blue). AP20934a was diluted at 1:25 dilution. An Alexa Fluor® 488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.

# FGFR1 Antibody (Center) - Background

Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of embryonic development, cell proliferation, differentiation and migration. Required for normal mesoderm patterning and correct axial organization during embryonic development, normal skeletogenesis and normal development of the gonadotropin-releasing hormone (GnRH) neuronal system. Phosphorylates PLCG1, FRS2, GAB1 and SHB. 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. Promotes phosphorylation of SHC1, STAT1 and PTPN11/SHP2. In the nucleus, enhances RPS6KA1 and CREB1 activity and contributes to the regulation of transcription. FGFR1 signaling is down-regulated by IL17RD/SEF, and by FGFR1 ubiquitination, internalization and degradation.



# FGFR1 Antibody (Center) - References

Itoh N., et al. Biochem. Biophys. Res. Commun. 169:680-685(1990). Dionne C.A., et al. EMBO J. 9:2685-2692(1990). Johnson D.E., et al. Mol. Cell. Biol. 10:4728-4736(1990). Isacchi A., et al. Nucleic Acids Res. 18:1906-1906(1990). Wennstroem S., et al. Growth Factors 4:197-208(1991).

### **FGFR1** Antibody (Center) - Citations

• Fibroblast growth factor receptor-1 mediates internalization of pathogenic spotted fever rickettsiae into host endothelium.