

# FGFR1 Antibody (C-term)

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM8449b

## Product Information

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<b>Application</b>	WB, IF, IHC-P, E
<b>Primary Accession</b>	<a href="#">P11362</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1,k
<b>Clone Names</b>	1440CT772.50.23
<b>Calculated MW</b>	91868

## Additional Information

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<b>Gene ID</b>	2260
<b>Other Names</b>	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
<b>Target/Specificity</b>	This FGFR1 antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 806-842 amino acids from the C-terminal region of human FGFR1.
<b>Dilution</b>	WB~~1:2000 IF~~1:25 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
<b>Storage</b>	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.
<b>Precautions</b>	FGFR1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	FGFR1
<b>Synonyms</b>	BFGFR, CEK, FGFBR, FLG, FLT2, HBGFR
<b>Function</b>	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.

## Background

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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.

## References

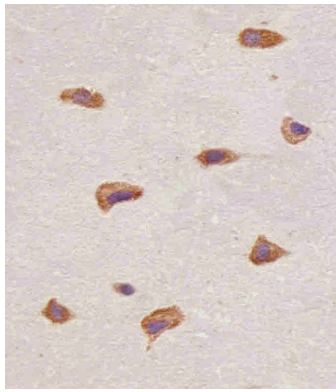
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- Itoh N.,et al.Biochem. Biophys. Res. Commun. 169:680-685(1990).  
Dionne C.A.,et al.EMBO J. 9:2685-2692(1990).  
Johnson D.E.,et al.Mol. Cell. Biol. 10:4728-4736(1990).  
Isacchi A.,et al.Nucleic Acids Res. 18:1906-1906(1990).  
Wennstroem S.,et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

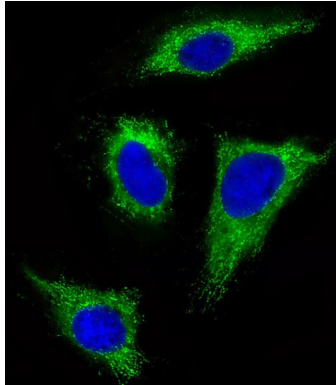
## Images

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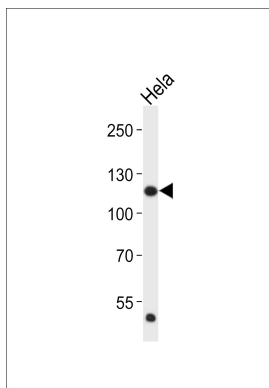
AM8449b staining FGFR1 in human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).



Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling FGFR1 with AM8449b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. The nuclear counter stain is DAPI (blue).



Western blot analysis of lysate from HeLa cell line, using FGFR1 Antibody (C-term)(Cat. #AM8449b). AM8449b was diluted at 1:2000. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysate at 20µg.

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