

#### FGFR1 Antibody (N-Terminus, clone M2F12) Mouse Monoclonal Antibody

Catalog # ALS14431

# Specification

# FGFR1 Antibody (N-Terminus, clone M2F12) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>P11362</u> Human, Mouse, Rat Mouse Monoclonal 92kDa KDa

## FGFR1 Antibody (N-Terminus, clone M2F12) - Additional Information

Gene ID 2260

**Other Names** 

Fibroblast growth factor receptor 1, FGFR-1, 2.7.10.1, 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

Reacts with the NH2-terminus of unique NH2-terminal Ig loop of FGFr1. Epitope is within the sequence between glu30 and ala74 of FGFr1a. Reacts with human, rat, and mouse receptor. Other species untested.

Reconstitution & Storage Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

FGFR1 Antibody (N-Terminus, clone M2F12) is for research use only and not for use in diagnostic or therapeutic procedures.

### FGFR1 Antibody (N-Terminus, clone M2F12) - 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**

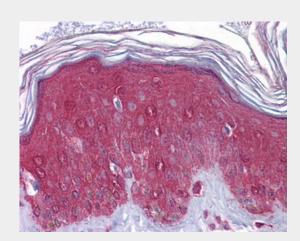
Detected in astrocytoma, neuroblastoma and adrenal cortex cell lines. Some isoforms are detected in foreskin fibroblast cell lines, however isoform 17, isoform 18 and isoform 19 are not detected in these cells.

## FGFR1 Antibody (N-Terminus, clone M2F12) - Protocols

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

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

### FGFR1 Antibody (N-Terminus, clone M2F12) - Images



Anti-FGFR1 antibody IHC of human skin.

# FGFR1 Antibody (N-Terminus, clone M2F12) - 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 (N-Terminus, clone M2F12) - 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).