

#### **FGF2 Antibody**

Purified Mouse Monoclonal Antibody Catalog # AO1048a

## **Specification**

## **FGF2 Antibody - Product Information**

Application WB, IHC, E
Primary Accession P09038
Reactivity Human
Host Mouse
Clonality Monoclonal
Description

FGF2 is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. FGF2 is a single-chain polypeptide growth factor that plays a significant role in the process of wound healing and is a potent inducer of anguogenesis. Due to its basic pH, the factor is named FGF-2 (basic FGF, bFGF). Several different forms of the human protein exist ranging from 18-24 kDa in size due to the use of alternative start sites within the fgf-2 gene. It has a 55 percent amino acid residue identity to FIBROBLAST GROWTH FACTOR 1 and has potent heparin-binding activity. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages. It was originally named basic fibroblast growth factor based upon its chemical properties and to distinguish it from acidic fibroblast growth factor (FIBROBLAST GROWTH FACTOR 1).

## **Immunogen**

Purified recombinant fragment of FGF2 expressed in E. Coli.

#### **Formulation**

Ascitic fluid containing 0.03% sodium azide.

# **FGF2 Antibody - Additional Information**

Gene ID 2247

### **Other Names**

Fibroblast growth factor 2, FGF-2, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2, FGFB

#### **Dilution**

WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

FGF2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



## **FGF2 Antibody - Protein Information**

Name FGF2

**Synonyms FGFB** 

#### **Function**

Acts as a ligand for FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed: <a href="mailto:ref"><a href="mailto:ref">ref</a> and FGFR4 (PubMed: <a href="mailto:ref"><a href="mailto:ref">ref</a> and FGFR4 (PubMed: <a href">ref</a> and FGFR4 (PubMed: href="http://www.uniprot.org/citations/8663044" target=" blank">8663044</a>). Also acts as an integrin ligand which is required for FGF2 signaling (PubMed:<a href="http://www.uniprot.org/citations/28302677" target=" blank">28302677</a>). Binds to integrin ITGAV:ITGB3 (PubMed:<a href="http://www.uniprot.org/citations/28302677" target="\_blank">28302677</a>). Plays an important role in the regulation of cell survival, cell division, cell differentiation and cell migration (PubMed:<a href="http://www.uniprot.org/citations/28302677" target=" blank">28302677</a>, PubMed:<a href="http://www.uniprot.org/citations/8663044" target=" blank">8663044</a>). Functions as a potent mitogen in vitro (PubMed: <a href="http://www.uniprot.org/citations/1721615" target=" blank">1721615</a>, PubMed:<a href="http://www.uniprot.org/citations/3732516" target="blank">3732516</a>, PubMed:<a href="http://www.uniprot.org/citations/3964259" target="blank">3964259</a>). Can induce angiogenesis (PubMed:<a href="http://www.uniprot.org/citations/23469107" target=" blank">23469107</a>, PubMed:<a href="http://www.uniprot.org/citations/28302677" target="\_blank">28302677</a>). Mediates phosphorylation of ERK1/2 and thereby promotes retinal lens fiber differentiation (PubMed: <a href="http://www.uniprot.org/citations/29501879" target=" blank">29501879</a>).

#### **Cellular Location**

Secreted. Nucleus. Note=Exported from cells by an endoplasmic reticulum (ER)/Golgi-independent mechanism. Unconventional secretion of FGF2 occurs by direct translocation across the plasma membrane (PubMed:20230531). Binding of exogenous FGF2 to FGFR facilitates endocytosis followed by translocation of FGF2 across endosomal membrane into the cytosol (PubMed:22321063). Nuclear import from the cytosol requires the classical nuclear import machinery, involving proteins KPNA1 and KPNB1, as well as CEP57 (PubMed:22321063)

#### **Tissue Location**

Expressed in granulosa and cumulus cells. Expressed in hepatocellular carcinoma cells, but not in non-cancerous liver tissue.

#### **FGF2 Antibody - Protocols**

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

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

# FGF2 Antibody - Images



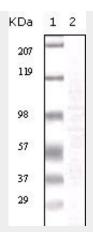


Figure 1: Western blot analysis using FGF2 mouse mAb against truncated FGF2 recombinant protein.

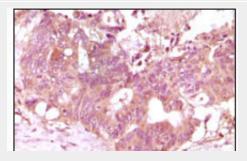


Figure 2: Immunohistochemical analysis of paraffin-embedded human recturn adenocarcinoma tissue showing cytoplasmic localization using FGF2 mouse mAb with DAB staining.

# **FGF2 Antibody - References**

1. Romanov VV et.al Oncogene. 2005 Oct 13; 24(45): 6855-60. 2. Webber CA et.al Mol Cell Neurosci. 2005 Sep; 30 (1):37-47.