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FGF2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1048a

Product Information

Application	WB, IHC, E
Primary Accession	P09038
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2H5G2C11
Calculated MW	30770
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.

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, FGF2, 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.

Protein Information

Name	FGF2
Synonyms	FGFB
Function	Acts as a ligand for FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed: 8663044). Also acts as an integrin ligand which is required for FGF2 signaling (PubMed:28302677). Binds to integrin ITGAV:ITGB3 (PubMed:28302677). Plays an important role in the regulation of cell survival, cell division, cell differentiation and cell migration (PubMed:28302677, PubMed:8663044). Functions as a potent mitogen in vitro (PubMed:1721615, PubMed:3732516, PubMed:3964259). Can induce angiogenesis (PubMed:23469107, PubMed:28302677). Mediates phosphorylation of ERK1/2 and thereby promotes retinal lens fiber differentiation (PubMed:29501879).
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.

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.

Images

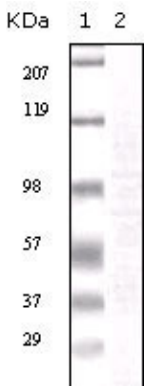


Figure 1: Western blot analysis using FGF2 mouse mAb against truncated FGF2 recombinant protein.

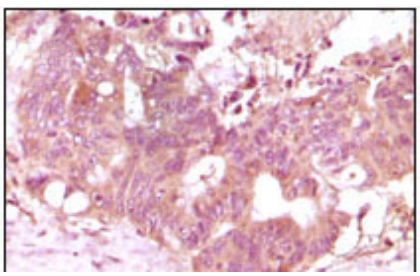


Figure 2: Immunohistochemical analysis of paraffin-embedded human recturn adenocarcinoma tissue showing cytoplasmic localization using FGF2 mouse mAb with DAB staining.

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