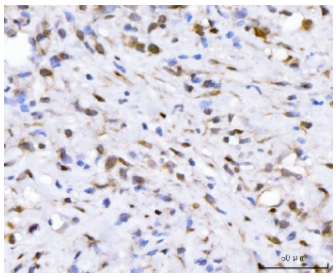
FGF2 Antibody / Fibroblast Growth Factor 2 Polyclonal Antibody (RQ6865)

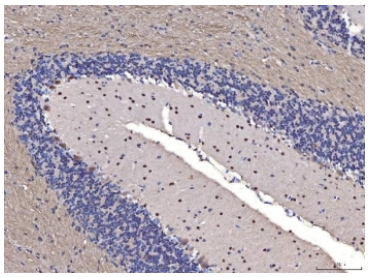
Catalog No.	Formulation	Size
RQ6865	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

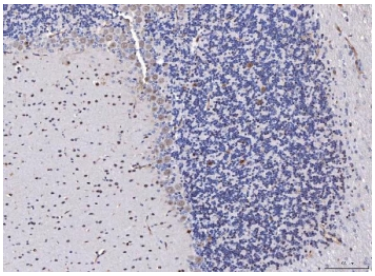
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P09038
Localization	Nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence (FFPE): 5ug/ml
Limitations	This FGF2 Antibody / Fibroblast Growth Factor 2 Polyclonal Antibody is available for research use only.



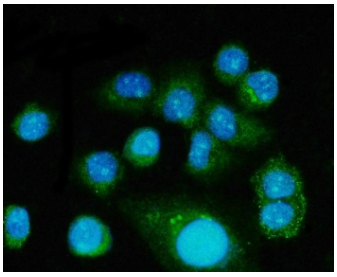
FGF2 Antibody IHC in Human Gastric Cancer. Immunohistochemical staining of FFPE human gastric cancer tissue using the Fibroblast Growth Factor 2 Polyclonal Antibody. Brown DAB staining is observed in scattered tumor-associated cells, with cytoplasmic and focal nuclear immunoreactivity. Staining varies among individual cells, while surrounding tissue regions exhibit comparatively limited immunoreactivity. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0) for 20 minutes.



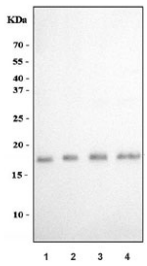
IHC staining of FFPE mouse cerebellum tissue with Fibroblast Growth Factor 2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



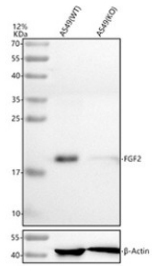
IHC staining of FFPE rat cerebellum tissue with Fibroblast Growth Factor 2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



FGF2 Antibody IF in Human SiHa Cells. Immunofluorescence staining of FFPE human SiHa cells using the Fibroblast Growth Factor 2 Polyclonal Antibody (green), with DAPI nuclear counterstaining (blue). FGF2 immunoreactivity is observed predominantly in the cytoplasm, with a diffuse and punctate staining pattern surrounding the nuclei. Heat-induced epitope retrieval was performed in citrate buffer (pH 6.0) for 20 minutes using steam.



Western blot testing of human 1) K562, 2) U-87 MG, 3) SK-O-V3 and 4) HeLa cell lysate with Fibroblast Growth Factor 2 antibody. Predicted molecular weight: 17-31 kDa (multiple isoforms).



FGF2 Antibody WB in A549 Wild-Type and FGF2 Knockout Cells. Western blot analysis of human A549 wild-type (lane 1) and FGF2 knockout (lane 2) whole-cell lysates using the Fibroblast Growth Factor 2 Polyclonal Antibody. A band at approximately 19-20 kDa is detected in wild-type cells and is substantially reduced in the knockout sample, with faint residual signal at the corresponding position. FGF2 has multiple reported protein isoforms with molecular weights ranging from approximately 17 to 31 kDa. Samples were loaded at 30 ug per lane and separated by 12% SDS-PAGE under reducing conditions. The primary antibody was used at 0.5 ug/ml, with beta-actin serving as the loading control.

Description

FGF2 Antibody / Fibroblast Growth Factor 2 Polyclonal Antibody targets fibroblast growth factor 2 (FGF2), also known as basic fibroblast growth factor (bFGF), a heparin-binding signaling protein involved in cell proliferation, differentiation, angiogenesis, and tissue repair. FGF2 belongs to the fibroblast growth factor family and influences numerous biological processes through interactions with fibroblast growth factor receptors (FGFRs). Unlike endocrine FGFs, which circulate to distant target tissues, FGF2 primarily functions through local signaling mechanisms that regulate cellular responses within the surrounding microenvironment.

FGF2 activates receptor tyrosine kinases through interactions with FGFRs and heparan sulfate proteoglycans, which help stabilize ligand-receptor complexes. Receptor activation initiates intracellular signaling through pathways including RAS-RAF-MEK-ERK, PI3K-AKT, and PLC-gamma. These signaling networks coordinate cellular proliferation, survival, migration, and differentiation. FGF2 activity is influenced by extracellular matrix binding, receptor availability, and mechanisms that regulate the spatial distribution of growth factor signaling.

FGF2 is produced in multiple protein isoforms through alternative translation initiation. The approximately 18 kDa low molecular weight isoform can be released through a nonclassical secretion pathway and participates in extracellular receptor-mediated signaling. Higher molecular weight isoforms, commonly ranging from approximately 22 to 34 kDa, contain additional N-terminal sequences that influence intracellular localization and function. Several of these forms accumulate in the nucleus, where they participate in regulatory processes distinct from conventional cell-surface FGFR signaling. Differences in isoform expression and localization contribute to the diverse biological activities associated with FGF2.

FGF2 plays an important role in vascular development by promoting endothelial cell proliferation, migration, and angiogenic responses. It also contributes to wound healing, tissue regeneration, neural development, and stem cell maintenance. Dysregulated FGF2 signaling has been implicated in tumor progression, pathological angiogenesis, fibrosis, and inflammatory responses. Its biological effects depend on interactions among growth factor availability, receptor expression, extracellular matrix components, and downstream signaling regulators. The FGF2 Antibody supports investigation of this multifunctional growth factor and its involvement in cellular communication, vascular biology, and tissue remodeling.

Browse our Signal Transduction Antibodies collection for additional research antibodies targeting growth factors, receptors, and intracellular signaling proteins involved in cellular proliferation, differentiation, and survival.

Application Notes

Optimal dilution of the FGF2 Antibody / Fibroblast Growth Factor 2 Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids RSRKYTSWYVALKRT from the human protein were used as the immunogen for the Fibroblast Growth Factor 2 antibody.

Storage

After reconstitution, the Fibroblast Growth Factor 2 Polyclonal antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Basic fibroblast growth factor antibody, bFGF antibody, FGF-2 antibody, Fibroblast growth factor 2 antibody, Basic FGF antibody, Heparin-binding growth factor 2 antibody, HBGF-2 antibody, FGF2 protein antibody

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