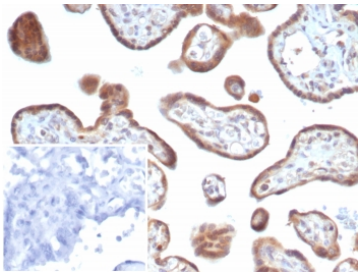
bFGF Antibody FGF2/7364 / Basic FGF Monoclonal Antibody [clone FGF2/7364] (V5062)

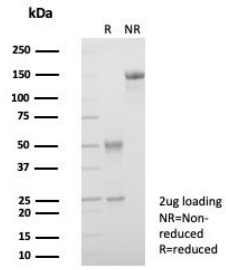
Catalog No.	Formulation	Size
V5062-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5062-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5062SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	FGF2/7364
Purity	Protein A/G affinity
UniProt	P09038
Localization	Nucleus, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This bFGF Antibody FGF2/7364 / Basic FGF Monoclonal Antibody is available for research use only.



bFGF Antibody FGF2/7364 IHC in Human Placenta. Immunohistochemical staining of FFPE human placental tissue using the Basic FGF Monoclonal Antibody clone FGF2/7364. Brown DAB staining is observed predominantly in trophoblastic cells lining the chorionic villi, with cytoplasmic immunoreactivity and variable staining of the underlying villous stroma. The secondary antibody negative control (inset), prepared by replacing the primary antibody with PBS, shows minimal background staining. Heat-induced epitope retrieval was performed in 10 mM Tris with 1 mM EDTA (pH 9.0) for 20 minutes.



SDS-PAGE analysis of purified, BSA-free bFGF antibody (clone FGF2/7364) as confirmation of integrity and purity.

Description

bFGF Antibody FGF2/7364 / Basic FGF Monoclonal Antibody recognizes basic fibroblast growth factor (bFGF), also known as fibroblast growth factor 2 (FGF2), a multifunctional signaling protein that regulates cellular proliferation, differentiation, migration, and tissue regeneration. FGF2 belongs to the fibroblast growth factor family, whose members coordinate developmental and physiological processes through interactions with specific receptor tyrosine kinases. Basic fibroblast growth factor is particularly important in vascular biology, where it influences endothelial cell behavior and the formation of new blood vessels.

FGF2 interacts with fibroblast growth factor receptors (FGFRs) in conjunction with heparan sulfate proteoglycans, which facilitate the formation and stabilization of signaling complexes. Receptor activation promotes phosphorylation of intracellular signaling proteins and recruitment of adaptor molecules that connect FGFRs to downstream pathways. These include the RAS-RAF-MEK-ERK cascade, which regulates proliferation and differentiation, and PI3K-AKT signaling, which contributes to cell survival and metabolic regulation. FGF2 signaling is further influenced by receptor internalization, extracellular matrix interactions, and the availability of heparan sulfate binding sites.

Unlike many conventionally secreted growth factors, FGF2 lacks a classical signal peptide and can reach the extracellular environment through an unconventional secretion mechanism. Alternative translation initiation generates multiple FGF2 isoforms with distinct intracellular distributions. The approximately 18 kDa form participates prominently in extracellular receptor-mediated signaling, whereas several higher molecular weight forms contain additional N-terminal sequences associated with nuclear localization. Nuclear FGF2 has been implicated in transcriptional regulation and cellular responses that differ from those initiated at the plasma membrane. These properties contribute to the diverse biological functions of basic fibroblast growth factor.

FGF2 participates in angiogenesis, wound repair, neural development, and the maintenance of certain stem cell populations. Its activity can promote endothelial cell proliferation and migration while supporting interactions between vascular cells and surrounding connective tissue. Altered FGF2 expression and signaling have also been associated with tumor vascularization, fibrotic remodeling, and resistance to growth-inhibitory signals. Because FGF2 functions through both extracellular receptor activation and intracellular mechanisms, its localization and abundance are important considerations when investigating growth factor biology. The bFGF Antibody FGF2/7364 provides a clone-defined monoclonal reagent for examining basic fibroblast growth factor in the context of vascular development, tissue remodeling, and cellular growth regulation.

Explore our FGF2 Antibody (RQ6865) for additional research into fibroblast growth factor signaling, angiogenesis, and cell proliferation, with Western blot validation using A549 wild-type and FGF2 knockout cell lysates.

Application Notes

Optimal dilution of the bFGF Antibody FGF2/7364 / Basic FGF Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 7-96) from the human protein was used as the immunogen for the bFGF antibody.

Storage

Aliquot the bFGF antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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