

Recombinant Rat FGF2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52275

Size: 10ug, 100ug

Protein Name: Fibroblast growth factor 2 (FGF-2) (Basic fibroblast growth factor) (bFGF) (Heparin-binding growth factor 2) (HBGF-2)

Synonym: Fgf2, Fgf-2

UniProt ID: P13109

UniProt Link: www.uniprot.org/uniprotkb/P13109/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 154 AA

Molecular Weight: 17 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAGSITSLPALPEDGGGAFFPGHFKDPKRLYCKNGGFFLRIHPDGRVDGVREKSDPHVKLQLQAE
ERGVVSIKGVCANRYLAMKEDGRLLASKCVTEECFFFERLESNNYNTYRSRKYSWYVALKRTGQY
KLGSKTGPGQKAILFLPMSAKS

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Fibroblast growth factor 2 (FGF-2) (Basic fibroblast growth factor) (bFGF) (Heparin-binding growth factor 2) (HBGF-2) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

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

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

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.