

# Recombinant Human FGFR4 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP50332

Size: 10ug, 100ug

Protein Name: Fibroblast growth factor receptor 4 (FGFR-4) (EC 2.7.10.1) (CD antigen CD334)

Synonym: FGFR4, JTK2, TKF

UniProt ID: P22455

UniProt Link: [www.uniprot.org/uniprotkb/P22455/entry](http://www.uniprot.org/uniprotkb/P22455/entry)

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 802 AA

Molecular Weight: 88 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MRLLLALLGVLLSVP GPPVLSLEA SEVELEPCLAPSLEQQEQELTVALGQPVRLCCGRAERG GHW  
YKEGSRLAPAGRVRGWRGRLEIASFLPEDAGRYLCLARGSMIVLQNLTLITGDSL TSSNDDEDPKSH  
RDPSNRHSYPQQAPYWTHPQRMEKKLHAVPAGNTVKFRCPAAGNPTPTIRWLKDGQAFHGENRIG  
GIRLRHQHWSLVME SVVPSDRGTYTCLVENAVGSIRYNYLLDV LERSPHRPILQAGLPANTTAVVGS  
DV ELLCKVYSDAQPHIQWLKHIVINGSSFGADGFPYVQVLKTADINSSEVEVLYLRNVSAEDAGEYTC  
LAGNSIGLSYQSAWLT VLP EEDPTWTAAPEARYTDIILYASGSLALAVLLLLAGLYRGQALHGRHPR  
PPATVQKLSRFPLARQFSLESGSSGKSSSSSLVRGVRLSSSGPALLAGLVSLDPLDPLWEFPRDRLV  
LGKPLGEGCFGQVVRAEAFGMDPARPDQASTVAVKMLKDNASDKDLADLVSEMEVMKLIGRHKNI  
NLLGVCTQEGPLYVIVECAAKGNLREFLRARRPPGPDLS PDGPRSSEGPLSFPVLVSCAYQVARGM  
QYLESRKCIHRDLAARNVLVTEDNVMKIADFGLARGVHHIDY YKKT SNGRLPVKWM APEALFDRVYT  
HQSDVWSFGILLWEIFTLGGSPYPGIPVEELF SLLREGHRMDRPPHCPPELYGLMRECWHAAPSQR  
PTFKQLVEALDKVLLAVSEEYLDLRLTFGPYSPSGGDASSTCSSSDSVF SHDPLPLGSSSF PFGSGV  
QT

## 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 receptor 4 (FGFR-4) (EC 2.7.10.1) (CD antigen CD334) 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:** Tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down-regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 and FRS2. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Promotes SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Mutations that lead to constitutive kinase activation or impair normal FGFR4 inactivation lead to aberrant signaling.

**Subcellular Localization:** Cell membrane; Single-pass type I membrane protein. Endosome. Endoplasmic reticulum. Note=Internalized from the cell membrane to recycling endosomes, and from there back to the cell membrane.; [Isoform 2]: Secreted.

## 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.