

## FGFR-4 Protein, Mouse (HEK293, His-Fc)

Cat. No.:	HY-P73060
Synonyms:	Fibroblast growth factor receptor 4; FGFR-4; CD334; JTK2; TKF
Species:	Mouse
Source:	HEK293
Accession:	Q03142 (M1-D366)
Gene ID:	14186
Molecular Weight:	100-110 kDa

### PROPERTIES

AA Sequence	<pre> MWLLLLALLSI   FQGTPALSLE   ASEEMEQEPC   LAPILEQQEQ VLTVALGQPV    RLC CGRTERG  RHWYKEGSRL   ASAGRVRGWR GRLEIASFLP    EDAGRYLCLA   RGSMTVVHNL   TLLMDDSLTS ISNDEDPKTL    SSSSSGHVYP   QQAPYWTHPQ   RMEKKLHAVP AGNTVKFRCP    AAGNPMPTIH   WLKDGQAFHG   ENRIGGIRLR HQHWSLVMES    VVPSDRGTYT   CLVENSLGSI   RYSYLLDVLE RSPHRPILQA    GLPANTTAVV   GSDVELLCKV   YSDAQPHIQW LKHVVINGSS    FGADGFYPVQ   VLKTTDINSS   EVEVLYLRNV SAEDAGEYTC    LAGNSIGLSY   QSAWLTVLPE   EDLTTWTATP EARYTD           </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

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**Background**

FGFR-4 Protein is a tyrosine-protein kinase that acts as a cell-surface receptor for fibroblast growth factors, regulating cell proliferation, differentiation, migration, lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism, and phosphate homeostasis. It is essential for the normal down-regulation of CYP7A1 expression, the enzyme involved in bile acid synthesis, in response to FGF19. Upon ligand binding, FGFR-4 phosphorylates PLCG1 and FRS2, leading to the activation of multiple signaling cascades. Activation of PLCG1 results in the production of diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 recruits GRB2, GAB1, PIK3R1, and SOS1, activating the RAS, MAPK1/ERK2, MAPK3/ERK1, and AKT1 signaling pathways. FGFR-4 also facilitates the SRC-dependent phosphorylation and lysosomal degradation of MMP14, a matrix protease, with MMP14 aiding in the internalization and degradation of FGFR-4. In addition, FGFR-4 plays a role in postnatal lung development and may be involved in skeletal muscle cell lineage development.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA