

FGFR-4 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75191
Synonyms:	Fibroblast growth factor receptor 4; FGFR-4; CD334; JTK2; TKF
Species:	Mouse
Source:	HEK293
Accession:	Q03142/NP_032037.2 (L17-D366)
Gene ID:	14186
Molecular Weight:	Approximately 58-80 kDa due to the glycosylation.

PROPERTIES

AA Sequence	<pre> LSLEAEEEME QEPCLAPILE QQEQVLTVAL GQPVRLCCGR TERGRHWYKE GSRLASAGRV RGWRGRLEIA SFLPEDAGRY LCLARGSMTV VHNLTLLMDD SLTISISNDED PKTLSSSSSSG HVPYPQAPYW THPQRMEKKL HAVPAGNTVK FRCPAAGNPM PTIHWLKDQ AFHGENRIGG IRLRHQHWSL VMESVVPSPDR GTYTCLVENS LGSIRYSYLL DVLERSPHRP ILQAGLPANT TAVVGSDEL LCKVYSDAQP HIQWLKHVVI NGSSFADGDF PYVQVLKTTD INSSEVEVLY LRNVSAEDAG EYTCLAGNSI GLSYQSAWLT VLPEEDLTWT TATPEARYTD </pre>
Biological Activity	Measured by its ability to inhibit FGF acidic-dependent proliferation of NIH-3T3 mouse fibroblast cells. The ED ₅₀ of this effect is 8.197 ng/ml in the presence of 2 ng/mL FGF-acidic, corresponding to a specific activity is 1.219×10 ⁵ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
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 ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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

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.

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

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