FGFR-4 Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78441
Synonyms:	CD334; FGF R4; FGFR4; FGFR-4; MGC20292; JTK2; TKF
Species:	Human
Source:	HEK293
Accession:	P22455 (L22-D369)
Gene ID:	2264
Molecular Weight:	60-75 kDa

PROPERTIES

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 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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 functions as a cell-surface receptor for fibroblast growth factors. It plays a crucial role in regulating cell proliferation, differentiation, migration, lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism, and phosphate homeostasis. One of its important functions is to facilitate the down-regulation of CYP7A1, the key enzyme in bile acid synthesis, in response to FGF19. Upon ligand binding, FGFR-4 phosphorylates PLCG1 and FRS2, leading to the activation of various signaling cascades. This activation results in the production of diacylglycerol and inositol 1,4,5-trisphosphate, which are important cellular signaling molecules. Additionally, phosphorylation of FRS2 triggers the recruitment of GRB2, GAB1, PIK3R1, and SOS1, leading to the activation of RAS, MAPK1/ERK2, MAPK3/ERK1, and the AKT1 signaling pathway. FGFR-4 also promotes the SRC-dependent phosphorylation of MMP14, a matrix protease, and facilitates its lysosomal degradation. The signaling of FGFR-4 is tightly regulated through receptor internalization and degradation, and MMP14 aids in this process. However, mutations that result in constitutive kinase activation or impair normal FGFR-4 inactivation can lead to aberrant signaling.

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