Product Data Sheet

Proteins

FGFR-1 Protein, Rhesus Macaque (HEK293, His)

Cat. No.: HY-P75770

Synonyms: Fibroblast growth factor receptor 1; FGFR-1; BFGFR; FLT-2; CD331; HBGFR

Species: Rhesus Macaque

HEK293 Source:

H9FRD4/NP_001253576.1 (R22-Y283) Accession:

Gene ID: 700126

Molecular Weight: Approximately 50-75 kDa due to the glycosylation.

PROPERTIES

AA Sequence	AA	Seq	uen	ce
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RPSPTLPEQD	ALPSSEDDDD	DDDSSSEEKE	TDNTKPNPVA
PYWTSPEKME	KKLHAVPAAK	TVKFKCPSSG	TPNPTLRWLK
NGKEFKPDHR	IGGYKVRYAT	WSIIMDSVVP	SDKGNYTCIV
ENEYGSINHT	YQLDVVERSP	HRPILQAGLP	ANKTVALGSN
VEFMCKVYSD	PQPHIQWLKH	IEVNGSKIGP	DNLPYVQILK
TAGVNTTDKE	MEVLHLRNVS	FEDAGEYTCL	AGNSIGLSHH
6 4 11/1 = 1/1 = 4 1	E	1. 1/	

SAWLTVLEAL EERPAVMTSP LY

Biological Activity

Measured by its ability to inhibit FGF-acidic dependent proliferation of Balb/c 3T3 mouse fibroblasts. The ED $_{50}$ for this effect is typically 0.3610ng/mL, corresponding to a specific activity is 2.770×10⁶ 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.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. 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-1 protein is a tyrosine-protein kinase that acts as a cell surface receptor for fibroblast growth factor and plays a critical role in the complex regulation of embryonic development, cell proliferation, differentiation, and migration. FGFR-1 activates multiple signaling cascades, phosphorylating key proteins such as PLCG1, FRS2, GAB1, and SHB. This activation results in the production of signaling molecules via PLCG1. FRS2 phosphorylation triggers recruitment of GRB2, GAB1, PIK3R1, and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1, MAP kinase signaling pathways, and AKT1 signaling pathways. FGFR1 also promotes phosphorylation of SHC1, STAT1, and PTPN11/SHP2. In the nucleus, it can enhance the activity of RPS6KA1 and CREB1 and participate in transcriptional regulation. Down-regulation of FGFR1 signaling occurs through IL17RD/SEF and FGFR1 ubiquitination, internalization, and degradation [1][2][3]

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

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Page 2 of 2 www.MedChemExpress.com