

## Product Data Sheet

## 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
Source:	HEK293
Accession:	H9FRD4/NP_001253576.1 (R22-Y283)
Gene ID:	700126
Molecular Weight:	Approximately 50-75 kDa due to the glycosylation.

PROPERTIES	
AA Sequence	RPSPTLPEQDALPSSEDDDDDDDSSSEEKETDNTKPNPVAPYWTSPEKMEKKLHAVPAAKTVKFKCPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRYATWSIIMDSVVPSDKGNYTCIVENEYGSINHTYQLDVVERSPHRPILQAGLPANKTVALGSNVEFMCKVYSDPQPHIQWLKHIEVNGSKIGPDNLPYVQILKTAGVNTTDKEMEVLHLRNVSFEDAGEYTCLAGNSIGLSHHSAWLTVLEALEERPAVMTSPLY
Biological Activity	Measured by its ability to inhibit FGF-acidic dependent proliferation of Balb/c 3T3 mouse fibroblasts. The ED <sub>50</sub> for this effect is typically 0.3610ng/mL, corresponding to a specific activity is 2.770×10 <sup>6</sup> 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 ddH <sub>2</sub> 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.

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ckground	FGFR-1 protein is a tyrosine-protein kinase that acts as a cell surface receptor for fibroblast growth factor and plays a critic role in the complex regulation of embryonic development, cell proliferation, differentiation, and migration. FGFR-1 activate

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<sup>[1][2][3]</sup>

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

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