

FGF-1 Protein, Cynomolgus

Cat. No.:	HY-P76332
Synonyms:	Multifunctional fusion protein; HBGF-1; ECGF; FGF1; FGF-a; FGF-acidic
Species:	Cynomolgus
Source:	E. coli
Accession:	NP_001252958 (F16-D155)
Gene ID:	705970
Molecular Weight:	Approximately 16 kDa.

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4, 20% Glycerol. 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 ₂ 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

Background	Fibroblast growth factor 1 is a growth factor and signaling protein encoded by the FGF1 gene. FGF-1 protein plays a critical role in the regulation of a variety of cellular processes, including cell survival, division, angiogenesis, differentiation, and migration. It acts as a potent mitogen and as a ligand for FGFR1 and integrin. In the presence of heparin, FGF-1 binds to FGFR1, leading to dimerization and activation through autophosphorylation of tyrosine residues. FGF-1 also binds to the integrin ITGAV: ITGB3, forms a ternary complex with FGFR1 and induces PTPN11 recruitment to the complex. It induces the phosphorylation and activation of FGFR1, FRS2, MAPK3/ERK1, MAPK1/ERK2, and AKT1, and can also stimulate angiogenesis. FGF-1 interacts with a variety of receptors and proteins, including FGFR2, FGFR3, FGFR4, FGFBP1, S100A13, SYT1, LRRC59, CSNKA, CSNKB and FIBP ^{[1][2][3]} .
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Caution: Product has not been fully validated for medical applications. For research use only.

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