

Recombinant Human HBEGF

Catalog # FL021

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/μg of rHuHB-EGF protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 1 ng/ml, corresponding to a specific activity of $\geq 1.0 \times 10^6$ U/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 10 mM PB, with 500 mM NaCl, 5% (v/v) Trehalose, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	Q99075 Asp63-Leu148
Amino acid sequence	DLQEADLDLLRVTLSSKPQALATPNKEEHGKRKKKGGKGLGKKRDPCLRKYKDFCIHGECYVKELRAPSCICHPGYHGERCHGLSL
Molecular weight	Approximately 9.7 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.
Synonyms	HBEGF, DT-R
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Human HBEGF is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Heparin-binding epidermal growth factor (HB-EGF) -like growth factor (EGF) is found in cerebral neurons. Its expression is increased after hypoxic or ischemic injury, which also stimulates neurogenesis. HB-EGF has been implicated as a participant in a variety of normal physiological processes such as blastocyst implantation, wound healing, and in pathological processes such as tumor growth, SMC hyperplasia and atherosclerosis. HB-EGF is an 87 amino acid mitogenic and chemotactic glycoprotein containing an EGF-like domain with six conserved cysteine residues. Human HB-EGF shares about 73% and 76% a.a. sequence identity with murine and rat HB-EGF. Recombinant human HB-EGF is a 9.7kDa protein containing 86 amino acid residues.

