

## Recombinant Human HB-EGF

### Information

<b>Gene ID</b>	1839
<b>Accession #</b>	Q99075
<b>Alternate Names</b>	HBEGF, DT-R
<b>Source</b>	<i>Escherichia coli</i> .
<b>M.Wt</b>	Approximately 9.7 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.
<b>AA Sequence</b>	DLQEADLDLL RVTLSKPQA LATPNKEEHG KRKKKGKGLG KKRDPCLRKY KDFCIHGECK YVKELRAPSC ICHPGYHGER CHGLSL
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 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.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> 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 > 1.0 × 10 <sup>6</sup> IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Human HB-EGF	10 µg	100 µg	500 µg

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## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuHB-EGF as determined by LAL method.

## Description

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.

## Reference

1. Jin K, Mao XO, Sun Y, et al. 2002. J Neurosci. 22:5365-73.
2. Higashiyama S, Abraham JA, Miller J, et al. 1991. Science. 251:936-9.

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