

Recombinant Murine Heparin-binding EGF-like Growth Factor

Information

Gene ID	15200
Accession #	Q06186
Alternate Names	HBEGF, DT-R
Source	Escherichia coli.
M.Wt	Approximately 9.8 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.
AA Sequence	DLEGTDLNLF KVAFSSKPQG LATPSKERNG KKKKKKGKGLG KKRDPCLRKY KDYCIHGECR YLQEFRTSPSC KCLPGYHGHR CHGLTL
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 10 mM PB, 500 mM NaCl, pH7.4.
Reconstitution	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 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED 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 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10µg	100µg	500µg
Recombinant Murine Heparin-binding EGF-like Growth Factor	10µg	100µg	500µg

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- 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

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuHB-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 and wound healing, and in pathological processes such as tumor growth, SMC hyperplasia and atherosclerosis. The protein is an 87 amino acid mitogenic and chemotactic glycoprotein containing an EGF-like domain with six conserved cysteine residues. Mouse HB-EGF shares about 73 % a.a. sequence identity with human 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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