

## User Manual

### ***Recombinant Murine Heparin-binding EGF-like Growth Factor (rMuHB-EGF)***

Cat. No. MEGFP-08011 (10 µg)  
MEGFP-08011 (500 µg)  
MEGFP-08011 (1000 µg)

**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. Murine HB-EGF shares about 81 % a.a. sequence identity with human HB-EGF.

**Source:**

*Escherichia coli*

**Unit:**

10 µg / 50 µg / 1000 µg

**Formulation:**

Lyophilized from a 0.2 µm filtered concentrated solution in 10 mM PB, 500 mM NaCl, pH7.4.

**Molecular Weight:**

Approximately 9.8 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.

**Endotoxin:**

Less than 1 EU/µg of rMuHB-EGF as determined by LAL method.

**Purity:**

> 97 % by SDS-PAGE and HPLC analyses.

**Biological 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  $> 1.0 \times 10^6$  IU/mg.

**Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

**AA Sequence:**

DLEGTDLNLF KVAFSSKPOG LATPSKERNG KKKKKGKGLG KKRDPCLRKY  
KDYCIHGECR YLQEFRTSPC KCLPGYHGHR CHGLTL

### 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  $\leq -20$  °C. Further dilutions should be made in appropriate buffered solutions.

### Storage:

This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. **Avoid repeated freeze/thaw cycles.**

### Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. **FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAPEUTIC OR DIAGNOSTIC USE.**

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

**Cyagen Biosciences reserves all rights on the technical documents of its OriCell™ cell culture products. No part of this document may be reproduced or adapted for other purposes without written permission from Cyagen Biosciences.**