

## Recombinant Rat Hbegf protein

**Cat. No.** Hbegf-592R    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Rat Hbegf protein was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | 86                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | 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. HB-EGF is an 87 amino acid mitogenic and chemotactic glycoprotein containing an EGF-like domain with six conserved cysteine residues. Rat HB-EGF shares about 76 % a.a. sequence identity with human HB-EGF. |
| <b>Form</b>             | Lyophilized from a 0.2µm filtered concentrated solution in PBS, 300 mM NaCl, pH 7.4, 5 % trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-activity</b>     | 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.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b>   | Approximately 9.7 kDa, a single non-glycosylated polypeptide chain containing 86                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | amino acids.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>    | DLEGTDLDFKVAFSSKPQALATPGKEKNGKKKRKGKGLGKKRDPCLKKYKDYCIH<br>GECRYLKELRIPSCHCLPGYHGQRCHGLTL                                                                                                                                                                                                                                                                                                   |
| <b>Endotoxin</b>      | Less than 1 EU/μg of rRtHB-EGF as determined by LAL method.                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>         | >95% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                             |
| <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 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions. |

## GENE INFORMATION

|                        |             |
|------------------------|-------------|
| <b>Gene Name</b>       | Hbegf       |
| <b>Official Symbol</b> | Hbegf       |
| <b>Synonyms</b>        | HBEGF, DT-R |
| <b>Gene ID</b>         | 25433       |
| <b>mRNA Refseq</b>     | NM_012945   |

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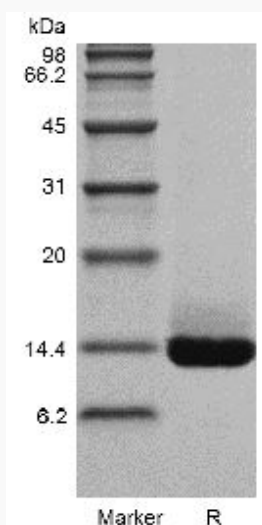
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Protein Refseq NP\_037077

UniProt ID Q06175

SDS-PAGE of Hbegf-  
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