

# Recombinant Rat Heparin-binding EGF-like Growth Factor (rRtHB-EGF)

## ChemWhat Technical Data Sheet (TDS)

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| <b>Catalog Number:</b>          | 145-08   |
| <b>Source:</b>                  | <i>Escherichia coli</i> .  |
| <b>Molecular Weight:</b>        | Approximately 9.7 kDa, a single non-glycosylated polypeptide chain containing 86 amino acids.  |
| <b>Quantity:</b>                | 10µg/50µg/1000µg   |
| <b>AA Sequence:</b>             | DLEGTDLDLF KVAFSSKPQA LATPGKEKNG KKKRKGKGLG KKRDPCLKKY<br>KDYCIHGECR YLKELRIPSC HCLPGYHGQR CHGLTL  |
| <b>Purity:</b>                  | > 95 % by SDS-PAGE and HPLC analyses.  |
| <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>Physical Appearance:</b>     | Sterile Filtered White lyophilized (freeze-dried) powder.  |
| <b>Formulation:</b>             | Lyophilized from a 0.2 µm filtered concentrated solution in PBS, 300 mM NaCl, pH 7.4, 5 % trehalose.   |
| <b>Endotoxin:</b>               | Less than 1 EU/µg of rRtHB-EGF as determined by LAL method.  |
| <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 °C. Further dilutions should be made in appropriate buffered solutions. |
| <b>Shipping:</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  |
| <b>Stability &amp; Storage:</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>                                 |
| <b>Usage:</b>                   | ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>   |

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### *Rat Heparin-binding EGF-like Growth Factor*

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. In addition, it shares about 73 % and 76 % a.a. sequence identity with murine and rat HB-EGF.