Data Sheet (Cat.No.TMPS-00046)

HB-EGF Protein, Human, Recombinant (CHO)

General Information

Synonyms: Heparin Binding EGF-like growth factor;Diphtheria toxin receptor;HBEGF;HEGFL;DTR

Protein Construction: Asp63-Leu148

Species: Human

Expression Host: CHO Cells

Accession: Q99075

Molecular Weight: 9.7 kDa (Predicted); 12-14 kDa (Reducing conditions)

QC Testing

Biological Activity: ED 50 < 0.5 ng/ml, measured in a cell proliferation assay using 3T3 cells.

Purity: > 95% as determined by SDS-PAGE; > 95% as determined by HPLC

Endotoxin: < 0.2 EU/μg of protein as determined by the LAL method.

Formulation: Lyophilized from a 0.2 μm filtered solution in PBS.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Proheparin-binding EGF-like growth factor (HB-EGF), also known as DTR, DTS and HEGFL, is a member of the EGF family of mitogens. It is expressed in macrophages, monocytes, endothelial cells and muscle cells. HB-EGF signals through the EGF receptor to stimulate the proliferation of smooth muscle cells, epithelial cells and keratinocytes. Compared to EGF, HB-EGF binds to the EGF receptor with a higher affinity and has been shown to bemore mitogenic, likely due to its ability to bind to heparin and heparin sulfate proteoglycans. HB-EGF has also been reported to act as a diphtheria toxin receptor, mediating endocytosis of the bound toxin. Heparin-binding EGF-like growth factor has been shown to interact with NRD1, Zinc finger and BTB domain-containing protein 16 and BAG1.

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