



**BioVendor Laboratory Medicine, Inc.**

## Human Epidermal Growth Factor, Recombinant Protein

### Product Data Sheet

<b>Cat. No.:</b>	<b>RP1762170100</b>	<b>RP1762170500</b>	<b>RP1762171000</b>
	<b>100µg</b>	<b>500µg</b>	<b>1mg</b>

#### Description:

Recombinant Human EGF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6222 Dalton. The rHuEGF is purified by proprietary chromatographic techniques.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:** The protein was lyophilized from a concentrated (1 mg/ml) solution with no additives.

#### Solubility:

It is recommended to reconstitute the lyophilized rHuEGF in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

#### Stability:

Lyophilized rHuEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuEGF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

#### Purity:

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

#### Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Asn-Ser-Asp-Ser-Glu, which agrees with the sequence of native human EGF. N-terminal methionine has been completely removed enzymatically.

**Dimers and aggregates:** Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

#### Biological Activity:

BioVendor's recombinant human EGF is fully biologically active when compared to standards. The ED<sub>50</sub>, calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells (measured by <sup>3</sup>H-thymidine uptake) is < 0.1 ng/ml corresponding to a specific activity of 1 x 10<sup>7</sup> Units/mg.

**Endotoxin:** Less than 0.1 ng/µg (IEU/µg) of rHuEGF.

**Protein content:** Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 2.858 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of EGF as a Reference Standard.

**Usage:** This material is offered for research, laboratory or further manufacturing purposes.

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