

Technical Data Sheet

Recombinant Human Epidermal Growth Factor(rh EGF)

1105-010 100ug

1101-050 100ug*5

Lot: 0617225

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

Synonyms: Urogastrone, URG, EGF.

Source: Escherichia Coli.

Presentation: 100ug(1105-010), sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from a concentrated (1mg/ml) solution with no additives.

Solubility: It is recommended to reconstitute the lyophilized Epidermal Growth Factor in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized Epidermal Growth Factor Recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution EGF 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 avoid freeze-thaw cycles.

Purity: Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

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 Epidermal Growth Factor human.

N-terminal methionine has been completely removed enzymatically.

Biological Activity: The ED50, calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells (measured by 3H-thymidine uptake) is < 0.1 ng/ml corresponding to a specific activity of 1 x 10⁷ Units/mg.

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Protein content: EGF 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.