



Epidermal Growth Factor 21-Leu, human recombinant (rHuEGF-21-Leu)

Catalog No: 94995
Lot No: XXXXX
Source: *E. coli*
Synonyms: Urogastrone, URG, EGF

Background

Epidermal growth factor has a profound effect on the differentiation of specific cells in vivo and is a potent mitogenic factor for a variety of cultured cells of both ectodermal and mesodermal origin. The EGF precursor is believed to exist as a membrane-bound molecule which is proteolytically cleaved to generate the 53-amino acid peptide hormone that stimulates cells to divide. EGF stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture.

Description

EGF 21-Leu human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6205 Dalton. EGF 21-Leu is purified by proprietary chromatographic techniques.

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 EGF-21-Leu in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Epidermal Growth Factor 21 Leu, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution EGF 21-Leu 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) 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.

Activity

The ED₅₀, calculated by the dose-dependant proliferation of MDCK cells is <10 ng/ml concentration corresponding to a specific activity of 100,000 IU/mg.

Usage

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