

DATASHEET

Name			
EGF 21-LEU, REC.HU			
Product	Epidermal Growth Factor 21-Leu, Rec. Human	Article-No.	40104
Formulation	White powder – lyophilised from a concentrated (1mg/ml) solution with no additives	Storage	Freezer at -20°C Prevent freeze-thaw cycles

Introduction:

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:

Recombinant Human Epidermal Growth Factor 21-Leu produced in *Escherichia Coli* is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6205 Dalton. The rHuEGF-21 Leu is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Purity: > 98.0% (per RP-HPLC & SDS-PAGE)

Formulation:

The protein was lyophilised from a concentrated (1mg/ml) solution with no additives.

Solubility:

It is recommended to reconstitute the lyophilised, rHuEGF-21 Leu in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilised rHuEGF-21 Leu, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution, rHuEGF-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).

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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.

Biological Activity:

The ED₅₀, calculated by the dose-dependent proliferation of MDCK cells is < 10 ng/ml.

Protein content:

Protein quantification was carried out by two independent methods:

1. UV spectroscopy at 280nm using the absorbency value of 2.85 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:

Our products are intended for lab research only. Not for human, animal or diagnostic use.