

DATASHEET

| Name | | EGF- REC.HU, PICHIA | |
|-------------|---|---------------------|--|
| Product | Epidermal Growth Factor- Pichia derived, Rec. Human | Article-No. | 40103 |
| Formulation | White powder - Each lyophilized mg contains contains 0.15M NaCl, 0.025M sodium bicarbonate, pH-7.5 | 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 produced in *Pichia Pastoris* is a single, glycosylated, polypeptide chain containing 51 amino acids and having a molecular mass of 6KDa. The EGF is purified by proprietary chromatographic techniques.

Source: *Pichia Pastoris*

Purity: > 95.0% (per RP-HPLC & SDS-PAGE)

Solubility:

It is recommended to reconstitute the lyophilised 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, 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).

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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, which agrees with the sequence of native EGF human. N-terminal methionine has been completely removed enzymatically.

Biological Activity:

The ED₅₀, calculated by the dose-dependent 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.

Protein content:

Protein quantification 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:

Our products are intended for lab research only. Not for humans, animals or diagnostic use.