



Epidermal Growth Factor, rat recombinant (rrEGF)

Catalog No: 97283
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

Epidermal Growth Factor rat recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6151 Dalton. Rat EGF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

EGF was lyophilized from a 0.2 µm filtered concentrated (1.0 mg/ml) solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized EGF in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized EGF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rat 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 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

NSNTGCPPSY DGYCLNGGVC MYVESVDRYV CNCVIGYIGE RCQHRDLRWW KLR

Activity

The ED50 as calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells is less than 0.1 ng/ml, corresponding to a specific activity of >10,000,000 units/mg.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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