Epidermal Growth Factor, mouse recombinant (rmEGF)

Catalog No: 94943
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 mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 53 amino acids including 3 intramolecular disulfide-bonds and having a molecular mass of 6 kDa. EGF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized without additives.

Solubility

It is recommended to reconstitute the lyophilized EGF in sterile 18 MΩ-cm H_2O not less than 100 µg/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). 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

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NSYPGCPSSY DGYCLNGGVC MHIESLDSYT CNCVIGYSGD RCQTRDLRWW ELR
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Activity

The activity is determined by the dose-dependent proliferation of mouse BALB/c 3T3 cells and is typically <0.1 ng/ml.

Usage

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