

EGF Human

Description:Epidermal Growth Factor Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 53 amino acids and having a molecular mass of 6222 Dalton. The EGF is purified by proprietary chromatographic techniques.

Synonyms:Urogastrone, URG, EGF.

Source:Escherichia Coli.

Physical Appearance:Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence:NSDSECPLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW ELR.

Purity:Greater than 98.0% as determined by:(a) Analysis by SEC-HPLC.(b) Analysis by SDS-PAGE.

Formulation:

The protein was lyophilized from a concentrated (1mg/ml) solution containing PBS pH-7.4.

Stability:

Lyophilized Epidermal Growth Factor Recombinant 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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized Epidermal Growth Factor in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

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.

Biological Activity:

The ED₅₀, calculated by the dose-dependant 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 10,000,000 Units/mg.

References:

1.Title:Activation of the Hedgehog pathway in pilocytic astrocytomas.Publication:Neuro Oncol

and effect of polymeric stabilizers during heat treatment for the unfolded fraction of human epidermal growth factor.Publication:SEN'I GAKKAISHI

vol.67,nov.8(2011)Link:http://www.jstage.jst.go.jp/article/fiber/67/8/185/_pdf3.Title:GPR56 is essential for testis development and male fertility in mice.Publication:Article first published online: 27 OCT 2010 DOI:

10.1002/dvdy.22468Link:<http://onlinelibrary.wiley.com/doi/10.1002/dvdy.22468/full4>.Title:Changing the Receptor Specificity of Anthrax Toxin.Publication:doi: 10.1128/mBio.00088-12 1 May 2012 mBio vol. 3 no. 3 e00088-12

Link:<http://mbio.asm.org/content/3/3/e00088-12.full5>.Title:Characterization of Non-Specific Cytotoxic Cell Receptor Protein 1: A New Member of the Lectin-Type Subfamily of F-Box Proteins.Publication:Kallio H, Tolvanen M, Jnis J, Pan P-w, Laurila E, et al. (2011)

Characterization of Non-Specific Cytotoxic Cell Receptor Protein 1: A New Member of the Lectin-Type Subfamily of F-Box Proteins. PLoS ONE 6(11): e27152.

doi:10.1371/journal.pone.0027152Link:<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0027152>

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