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Human Epidermal Growth Factor Yeast - Purified

Catalog No.: AR10035PU-N

Quantity: 0.5 mg

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.
EGF (Epidermal Growth Factor) is polypeptide growth factor that stimulates the proliferation of a wide range of epidermal and epithelial cells. Recombinant human EGF is a 6.2 kDa protein containing 53 amino acid residues

Uniprot ID: Q6QBS2

NCBI: 9606

Species: Human

Source: P. pastoris

Format: **State:** Sterile Filtered White lyophilized (freeze-dried) powder.
Purity: ›95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.
Buffer System: Each lyophilized mg contains contains 0.15M NaCl, 0.025M sodium bicarbonate, pH 7.5.
Reconstitution: Restore the lyophilized Epidermal Growth Factor in sterile 18MΩ-cm^{-1} H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Description: Epidermal Growth Factor Human Recombinant 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.
AA 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-dependant proliferation of murine BALB/c 3T3 cells (measured by ^{3}H-thymidine uptake) is 0.1 ng/ml corresponding to a specific activity of 1 x 10^7 Units/mg.
Molecular weight: 6 kDa

Add. Information:

Protein content:
Protein quantitation 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.

Storage:

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.