
RECOMBINANT HUMAN EGF ACF



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RECOMBINANT HUMAN EGF ACF

SHIPPING

This product is shipped at ambient temperature. Immediately upon receipt, store at the recommended temperature below.

Catalog No. 95108

STORAGE INSTRUCTIONS AND STABILITY

Upon receipt, store the lyophilized protein at or below -10°C in a manual defrost freezer for up to 12 months from date of receipt. Unopened vials are stable for one year from the date of receipt when stored as recommended. Reconstituted material should be apportioned in working volumes and stored at or below -10°C in manual defrost freezer. Reconstituted material is stable for 4-6 weeks when stored at or below -10°C and for 3-12 months at -80°C . Stability can be increased by adding at least 0.1% of carrier protein.

INTENDED USE

Recombinant Human EGF is a carrier-free, animal component-free bioactive recombinant growth factor intended for use in cell culture applications. EGF is a mitogenic factor involved in cell proliferation of epithelial and epidermal cells.

PRODUCT DESCRIPTION

- Synonyms**
Urogastrone, URG.
- Accession Number**
P01133
- Background**

Epidermal growth factor (EGF) is a protein that plays an important role in the regulation of various cell processes, including cell proliferation, migration, survival, and differentiation. EGF is a member of the EGF family that binds to the EGFR family of receptors (also known as ErbB receptors). The ErbB receptors consist of four transmembrane receptors belonging to the receptor tyrosine kinase (RTK) superfamily and includes EGFR (ErbB1/HER-1), ErbB2 (neu/HER-2), ErbB3 (HER-3), and ErbB4 (HER-4). Functional selectivity of EGF family members is due to distinctions in the conformation of the liganded receptor and subsequent differences in the sites of receptor tyrosine phosphorylation and receptor coupling to signalling effectors. Recombinant Human EGF is a single, non-glycosylated protein containing 53 amino acids, with a molecular weight of 6.2 kDa (1-3).

- Specifications**

Formulation

Recombinant Human EGF is lyophilized with no additives.

Protein content and Purity

$\geq 95\%$ determined by HPLC, reducing and non reducing SDS-PAGE analysis, UV spectroscopy at 280nm.

Bioactivity

ED50 is determined by a dose-dependent proliferation of BALB/c 3T3 cells. The ED50 is typically less than 15pg/mL.

Quality and Grade

Carrier-free. Animal component-free.

PRECAUTIONS AND WARNINGS

This product is for research or further manufacturing use only. It is not for use in diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical procedures has not been established.

DIRECTIONS FOR USE

- Reconstitution**
Centrifuge vials before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.
- Optimum concentration**
The optimum concentration varies depending on cell type and culture conditions. Working concentration should be determined for each specific application.

REFERENCES

- Zheleznova NN, Wilson PD, Staruschenko A (2011) Epidermal growth factor-mediated proliferation and sodium transport in normal and PKD epithelial cells. *Biochim. Biophys. Acta.* 1812(10): 1301-1313
- Schlessinger J (2002) Ligand-induced, receptor-mediated dimerization and activation of EGF receptor. *Cell* 110: 669-672
- Wilson KJ, Gilmore JL, Foley J, Lemmon MA, and Riese DJ (2009) Functional Selectivity of EGF Family Peptide Growth Factors: Implications for Cancer. *Pharmacol. Ther.* 122(1): 1-8