

## Human EGF, cct-premium

Human Epidermal Growth Factor, recombinant, cct-premium

Synonyms: Epidermal growth factor, Urogastrone, URG

*PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING*

Size	Order #	Lot #	Expiry Date
100 µg	4530.950.100		
500 µg	4530.950.500		
1 mg	4530.950.199		

Please enquire for bulk quantities and other vial sizes

### Description

Recombinant human Epidermal Growth Factor (EGF) is a 6.35 kDa globular protein containing 54 amino acid residues including 3 intramolecular disulfide-bonds. EGF is a potent growth factor, which stimulates the proliferation of various epidermal and epithelial cells. Additionally, EGF has been shown to inhibit gastric secretion, and to be involved in wound healing. EGF signals through a receptor known as c-erbB, which is a class I tyrosine kinase receptor. This receptor also binds with TGF- $\alpha$  and VGF (vaccinia virus growth factor). Biological activities ascribed to EGF include epithelial development, angiogenesis, inhibition of gastric acid secretion, fibroblast proliferation and colony formation of epidermal cells in culture.

- **Biological Activity**  $\geq 4 \times 10^5$  IU/mg
- **Source** *E. Coli*
- **Purity**  $\geq 98$  % (SDS-PAGE, HPLC)
- **Endotoxin level**  $\leq 0.01$  ng/ $\mu$ g of protein ( $\leq 0.1$ EU/ $\mu$ g)
- **Stabilizer** None
- **Buffer** PBS\*
- **Physical state** Sterile filtered (0.2 micron filter), lyophilized

### Biological Activity

The ED<sub>50</sub> of  $\leq 2.5$  ng/ml was determined by its ability to stimulate the proliferation of primary NHDF cells. It corresponds to a specific activity of  $\geq 4.0 \times 10^5$  units/mg. This corresponds to an activity of  $\geq 2.0 \times 10^7$  units/mg in a mouse BALB/c 3T3 assay.

### Reconstitution

We recommend a quick spin followed by reconstitution in sterile filtered water to a concentration of at least 100µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer - if possible - containing a carrier (example 5% Trehalose) and store in working aliquots at -20°C to -80°C.

### Stability

The lyophilized protein is stable at room temperature for up to 1 month, at 4°C for up to 6 months, and below -20°C until expiry date. Reconstituted protein is stable for at least 12 months when stored in working aliquots with a carrier at -20°C to -80°C. **Please avoid repeated freeze-thaw cycles.**

### Amino Acid Sequence

MNSDSECPLS HDGYCLHDGV CMYIEALDKY ACNCVVG YIG ERCQYRDLKW WELR

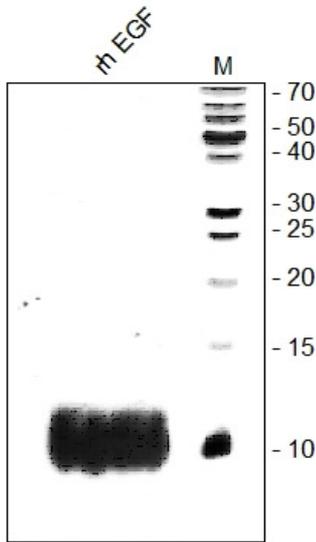
\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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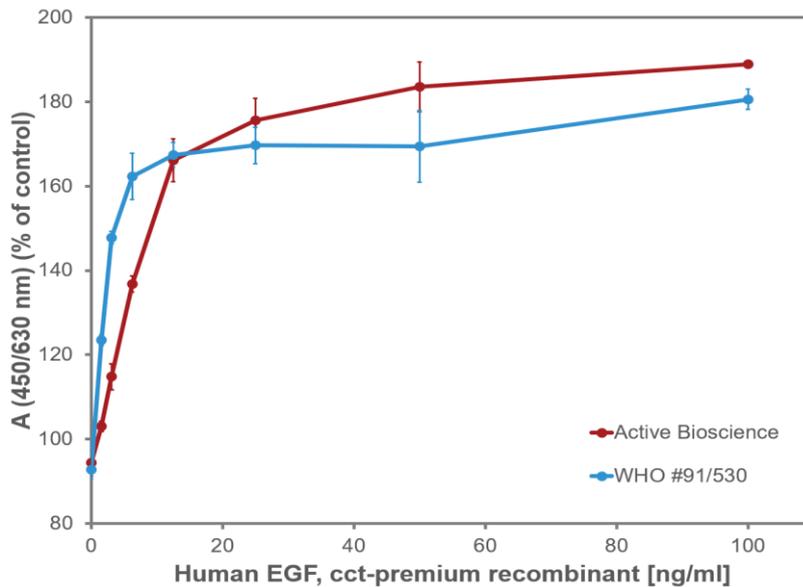
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**SDS-PAGE and Biological Activity of Human EGF, cct-premium**



(SDS-PAGE 18%, red.)

**Fig. 1:** SDS-PAGE analysis of recombinant human EGF. Sample was loaded in 18% SDS-polyacrylamide gel under reducing conditions and stained with Silver stain.



**Fig. 2:** Measurement of the dose-dependent stimulation of cell proliferation in Normal Human Dermal Fibroblast (NHDF) cells by recombinant human EGF, cct-premium and WHO standard 91/530. Values are the means ( $\pm$ SD) of triplicate determinations and expressed as percentage of control.

**Usage:** For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

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