

Doc. No.	Rev	Effective Date
PI141	02	20-JUN- 2025

Human EGF (recombinant)

Synonyms:

Epidermal growth factor, EGF, URG, HOMG4, Urogastrone.

Product 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- α 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	$\geq 2.0 \times 10^5$ units/mg
• Source	<i>E. Coli</i>
• Purity	$\geq 95\%$ (SDS-PAGE, HPLC)
• Endotoxin level	≤ 0.1 ng/μg of protein (≤ 1 EU/μg)
• Stabilizer	None
• Buffer	PBS
• Physical state	Sterile filtered, lyophilized

Biological activity

The ED₅₀ of ≤ 5 ng/ml was determined by its ability to stimulate the proliferation of primary NHDF cells. It corresponds to a specific activity of $\geq 2.0 \times 10^5$ units/mg. This corresponds to an activity of $\geq 1.0 \times 10^7$ units/mg in a mouse BALB/c 3T3 assay.

Product Presentation

Product Code	Product Description	Size
GF-7B-hEGF.1MG	Human Epidermal Growth Factor, recombinant	1mg

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Life Science Production

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Instructions for use

Storage/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.**

Please note: Always centrifuge vial before opening

The expiry date of the product is indicated on the product label.

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.

Amino Acid Sequence

MNSDSECPLS HDGYCLHDGV CMYIEALDKY ACNCVVGIG ERCQYRDLKW WELR

Precautions and safety

- Suitable for use in manufacturing following project specific validation
- Not intended for therapeutic or diagnostic procedures, animals or humans.
- Not intended for direct use in animals or humans

Support

To learn more, contact us by telephone at +44 1234 889180 or email at sales@lifesciencegroup.co.uk

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