

Human EGF Protein, premium grade

Catalog # EGF-H5116



BIOSYSTEMS
Acro

Features and Advantages

- Seamless Transition from Preclinical to Clinical: Same cell clone, process, and QC as GMP products.
- Enhanced Production Standards: AOF raw materials, pharma-grade excipients, Grade B+A (ISO 5) environment.
- Comprehensive Quality Control: Additional strict testing for process impurities, sterility, and mycoplasma.
- Cost-Effective Solution: GMP-comparable quality at an economical price for early development.
- Risk Mitigation: Enhanced safety through rigorous impurity control and comprehensive testing.

Synonym

EGF, URG, HOMG4

Source

Human EGF Protein, premium grade (EGF-H5116) is expressed from *E. coli* cells. It contains AA Asn 971 - Arg 1023 (Accession # [P01133-1](#)).

Predicted N-terminus: Met

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage.

GMP-EGFH17 is the GMP version of this EGF-H5116. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stage to later clinical phases.

Molecular Characterization

EGF(Asn 971 - Arg 1023)
P01133-1

This protein carries no "tag".

The protein has a calculated MW of 6.4 kDa. The protein migrates as 6 kDa \pm 3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per μ g by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/ μ g of protein tested by ELISA.

Host Cell DNA

<0.001 ng/ μ g of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μ m filtered solution in 20 mM Citric acid, pH2.2 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

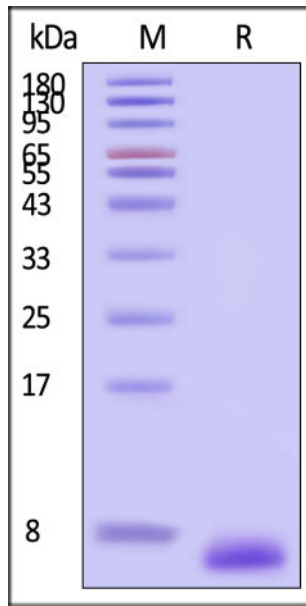
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

Quality Description

ACRO's Research-grade products are suitable for a wide range of cell culture applications, particularly for research use in academic institutions. These products are sterilized by filtration, followed by lyophilization where applicable. Typical specifications include endotoxin levels of <0.01 EU/μg and purities >95%. Biological activity is calibrated against WHO/NIBSC standards when available.

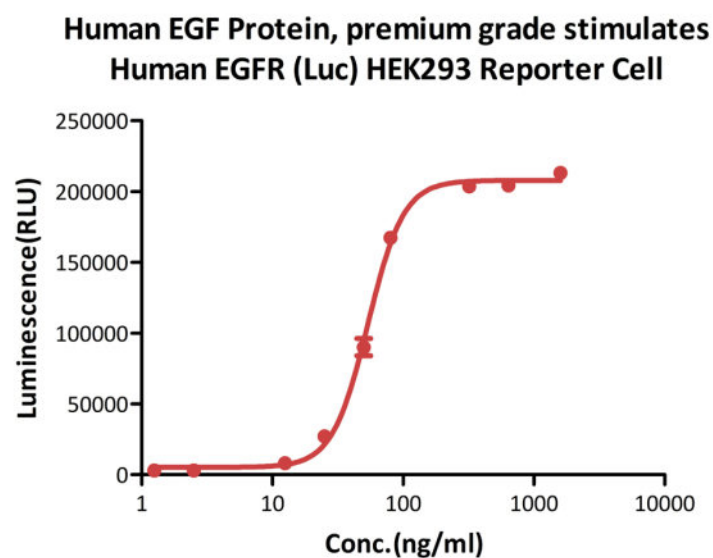
ACRO's Premium-grade (Pre-GMP) products are characterized by their high quality and enhanced safety profiles, making them ideal for early-stage discovery and manufacturing processes in cell therapy companies. A key advantage is their seamless transition to corresponding GMP-grade versions. Biological activity is calibrated against WHO/NIBSC standards when available. Typical specifications include endotoxin levels of <0.01 EU/μg and purities >95%. In addition, rigorous testing is conducted to ensure the absence of mycoplasma, HCD, and HCP, thereby guaranteeing product safety.

SDS-PAGE



Human EGF Protein, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-CELL BASE



Human EGF Protein, premium grade (Cat. No. EGF-H5116) stimulates Human EGFR (Luc) HEK293 Reporter Cell. The specific activity of Human EGF Protein, premium grade is $> 6.00 \times 10^5$ IU/mg, which is calibrated against human EGF WHO International Standard (NIBSC code: 91/530) (QC tested).

Background

Human epidermal growth factor (EGF) is also known as HOMG4 and URG, and is a growth factor that plays an important role in the regulation of cell growth, proliferation, and differentiation by binding to its receptor EGFR. Epidermal growth factor can be found in human platelets, macrophages, urine, saliva, milk, and plasma. EGF is the founding member of the EGF-family of proteins. Members of this protein family have highly similar structural and functional characteristics. All family members contain one or more repeats of the conserved amino acid sequence. The biological effects of salivary EGF include healing of oral and gastroesophageal ulcers, inhibition of gastric acid secretion, stimulation of D synthesis as well as mucosal protection from intraluminal injurious factors such as gastric acid, bile acids, pepsin, and trypsin and to physical, chemical and bacterial agents. Because of the increased risk of cancer by EGF, inhibiting it decreases cancer risk.

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