

Active Recombinant Human EGF Protein (Asn971-Arg1023), GMP Grade, Animal-Free

Cat. No. EGF-34HG Lot. No. (See product label)

SPECIFICATION

Product Overview	GMP recombinant human EGF protein (Asn971-Arg1023) with an N-terminal Met was expressed in E. coli, produced in an Animal-Free laboratory and manufactured and tested under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	Asn971-Arg1023
Description	This gene encodes a member of the epidermal growth factor superfamily. The encoded preproprotein is proteolytically processed to generate the 53-amino acid epidermal growth factor peptide. This protein acts a potent mitogenic factor that plays an important role in the growth, proliferation and differentiation of numerous cell types. This protein acts by binding with high affinity to the cell surface receptor, epidermal growth factor receptor. Defects in this gene are the cause of hypomagnesemia type 4. Dysregulation of this gene has been associated with the growth and progression of certain cancers. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed.
Bio-activity	Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED50 for this effect is 20-100 pg/mL.

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The specific activity of Recombinant Human EGF is $>8.0 \times 10^5$ IU/mg, which is calibrated against the human EGF WHO International Standard.

Molecular Mass

Predicted Molecular Mass: 6 kDa
SDS-PAGE: 6 kDa, reducing conditions

N-terminal Sequence Analysis

Met-Asn971-Ser-Asp-Ser-Glu-(Cys)-Pro-Leu-Ser

Endotoxin

<0.10 EU/ μ g of the protein by the LAL method.

Purity

$>97\%$, by SDS-PAGE under reducing conditions and visualized by silver stain.

Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
A minimum of 12 months when stored at ≤ -20 centigrade as supplied. Refer to lot specific COA for the Use by Date.
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
3 months, ≤ -20 centigrade under sterile conditions after reconstitution.

Storage Buffer

Lyophilized from a $0.2 \mu\text{m}$ filtered solution in PBS.

Reconstitution

Reconstitute at $200 \mu\text{g/mL}$ in PBS.

Shipping

The product is shipped with polar packs.

GENE INFORMATION

Gene Name

EGF epidermal growth factor [Homo sapiens]

Official Symbol

EGF

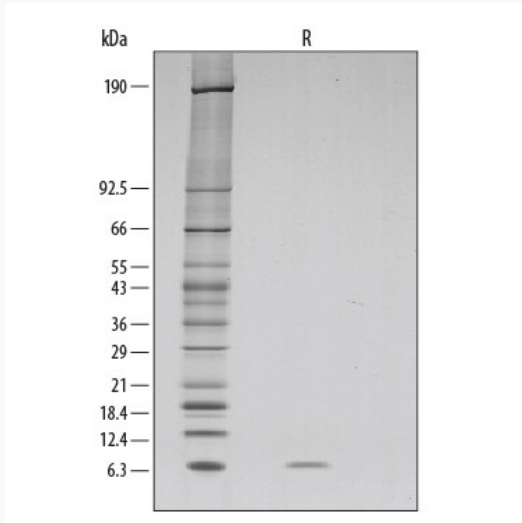
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Synonyms	EGF; epidermal growth factor; epidermal growth factor (beta urogastrone); pro-epidermal growth factor; beta-urogastrone; URG; HOMG4;
Gene ID	1950
mRNA Refseq	NM_001178130
Protein Refseq	NP_001171601
MIM	131530
UniProt ID	P01133

SDS-PAGE



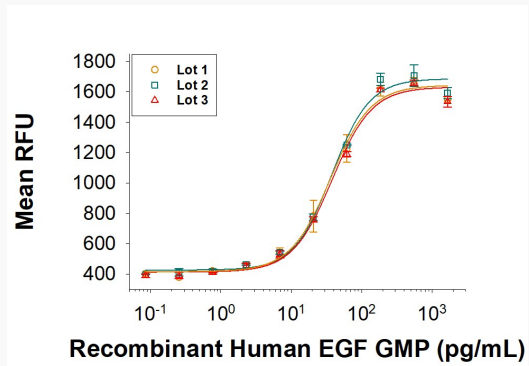
The SDS-PAGE gel shows a single prominent band in lane R at approximately 190 kDa, corresponding to the expected molecular weight of EGF. Molecular weight markers are indicated on the left side of the gel.

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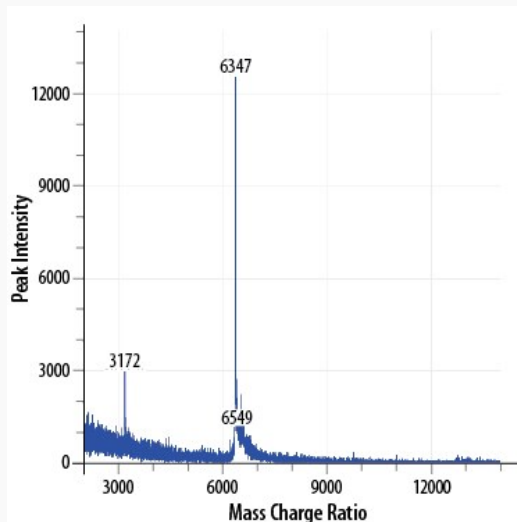
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Bioactivity



Mass Spectrometry



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