

# Recombinant Human EGF Protein

Catalog No.: RP03287 Recombinant

## Sequence Information

**Species** Human    **Gene ID** 1950    **Swiss Prot** P01133

### Tags

No-Tag

### Synonyms

EGF;Pro-epidermal growth factor; EGF;  
Cleaved into: Epidermal growth factor;  
Urogastrone

## Background

As a low-molecular-weight polypeptide, EGF was first purified from the mouse submandibular gland, but since then it was found in many human tissues including submandibular gland, parotid gland. It can also be found in human platelets, macrophages, urine, saliva, milk, and plasma. EGF is a growth factor that stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. It results in cellular proliferation, differentiation, and survival. Salivary EGF, which seems also regulated by dietary inorganic iodine, also plays an important physiological role in the maintenance of oro-esophageal and gastric tissue integrity. EGF acts by binding with high affinity to epidermal growth factor receptor on the cell surface and stimulating the intrinsic protein-tyrosine kinase activity of the receptor.

## Product Information

### Source

*E. coli*

### Purification

≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by HPLC.

### Calculated MW

6.35 kDa

### Observed MW

5-15 kDa

### Endotoxin

< 0.01 EU/μg of the protein by LAL method

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze/thaw cycles.

## Basic Information

### Description

Recombinant Human EGF Protein is produced by *E. coli* Cells expression system. The target protein is expressed with sequence (Asn971-Arg1023) of Human EGF(Accession #NP\_001954.2) fused with no tag .

### Bio-Activity

Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.02-0.2ng/ml.

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

### Operational Notes

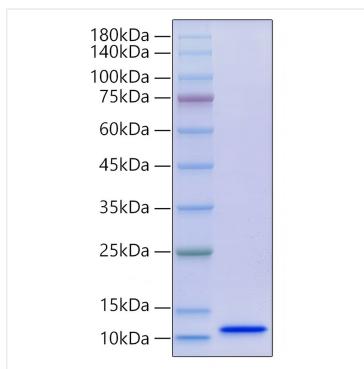
For your safety and health, please wear a lab coat and disposable gloves for handling.

## Contact

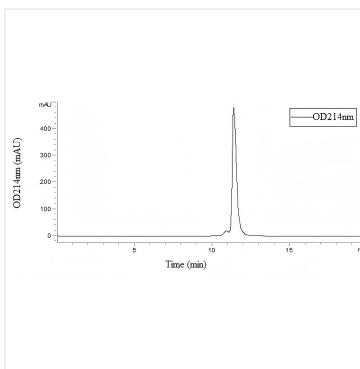
	400-999-6126
	<a href="mailto:cn.market@abclonal.com.cn">cn.market@abclonal.com.cn</a>



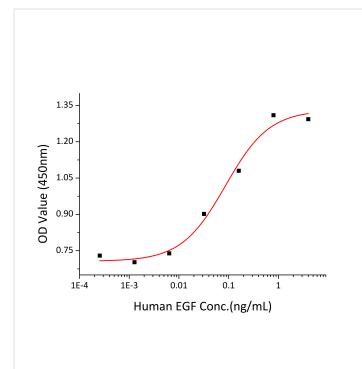
## Validation Data



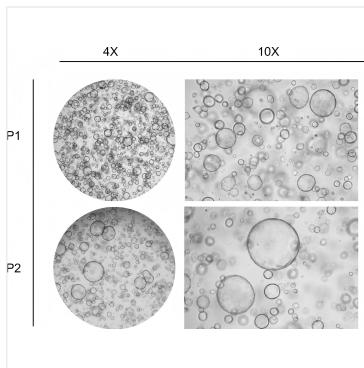
Recombinant Human EGF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



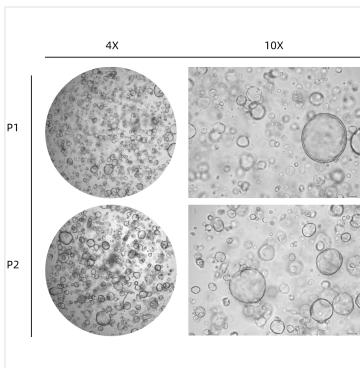
Recombinant Human EGF Protein is greater than 95% as determined by SEC-HPLC.



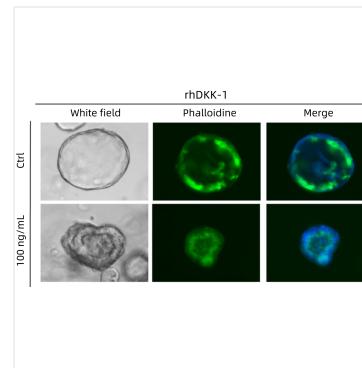
Measured in a cell proliferation assay using Balb3T3 mouse fibroblast cells. The  $ED_{50}$  for this effect is 0.04-0.17 ng/mL, corresponding to a specific activity of  $5.88 \times 10^6 \sim 2.50 \times 10^7$  units/mg.



Human stomach organoids were cultured with EGF(Cat. RP03287), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).



Human liver organoids were cultured with EGF(Cat. RP03287), HGF(Cat. RP01602), FGF2(Cat. RP01042), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).



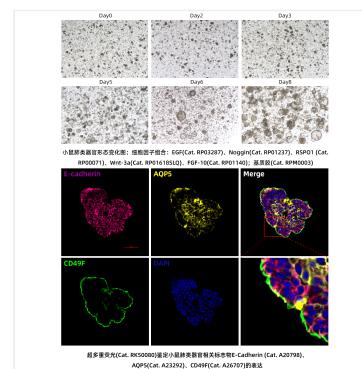
Human kidney organoids were cultured with EGF(Cat. RP03287), FGF2(Cat. RP01042), FGF7(Cat. RP01717), FGF9(Cat. RP01710), FGF10(Cat. RP01140), IGF-(Cat. RP00996), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ). And further, DKK-1(RP01343) was used to induce the establishment of cell polarity.



Human colorectal cancer organoid were cultured with EGF(Cat. RP03287), NOG(Cat. RP01237), FGF10(Cat. RP01140), RSPO1(Cat. RP00071), HGF(Cat. RP01602).



Human gastric cancer organoid were cultured with EGF(Cat. RP03287), NOG(Cat. RP01237), FGF10(Cat. RP01140), RSPO1(Cat. RP00071), Wnt-3a Surrogate(Cat. RP01618SLQ).



Mouse lung organoids were cultured in Matrigel (Cat. RPM0003) with medium supplemented with EGF (Cat. RP03287), Noggin (Cat. RP01237), RSPO1 (Cat. RP00071), Wnt-3a (Cat. RP01618SLQ), and FGF-10 (Cat. RP01140).