

Active Recombinant Human EGF Protein

Catalog No.: RP01030 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	1950	P01133

Tags

C-hFc&His

Synonyms

EGF;HOMG4;URG

Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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.

Background

Epidermal growth factor (EGF) is the founding member of the EGF family that also includes TGF-α, amphiregulin (AR), betacellulin (BTC), epiregulin (EPR), heparin binding EGF like growth factor (HB_x005f

Basic Information

Description

Active Recombinant Human EGF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asn 971-Arg 1023) of human EGF (Accession #NP_001954.2) fused with hFc, 6xHis tag at the C-terminus.

Bio-Activity

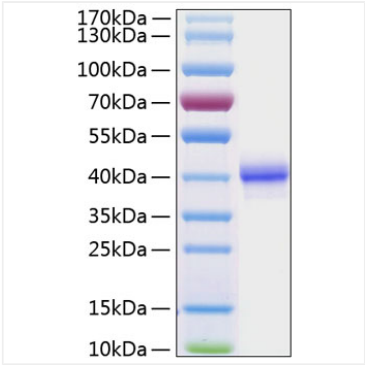
1. Measured by its ability to stimulate EGF Receptor autophosphorylation in A431 cells. 1-10 ng/mL of Recombinant Human EGF can effectively enhance EGF Receptor autophosphorylation. 2. Measured by its binding ability in a functional ELISA. Immobilized Human EGFR at 5 μg/mL (100 μL/well) can bind Human EGF with a linear range of 7-25 ng/mL. 3. Measured in a cell proliferation assay using BALB/c 3T3 mouse embryonic fibroblasts. The ED₅₀ for this effect is typically 0.065-0.26 ng/mL, corresponding to a specific activity of 3.84×10⁶-1.54×10⁷ units/mg.

Storage

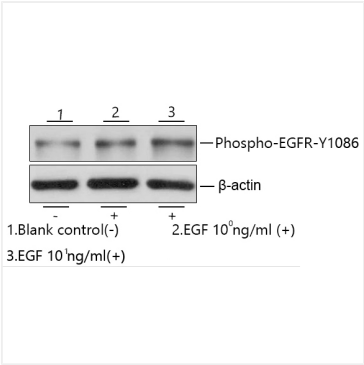
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

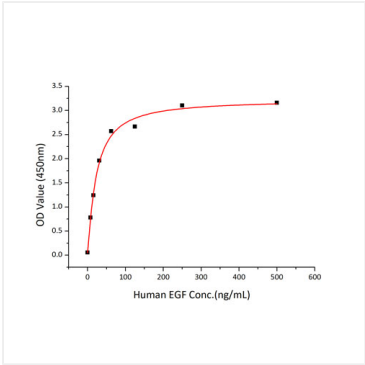
Validation Data



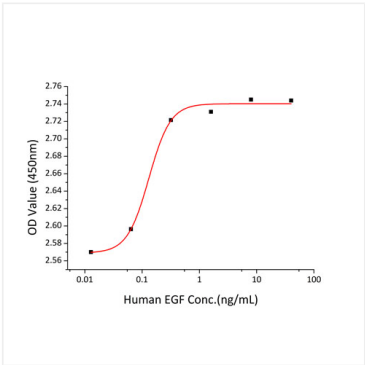
Active Recombinant Human EGF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 40 kDa.



Recombinant Human EGF enhances EGF Receptor autophosphorylation in A431 cells. 1-10 ng/mL of Recombinant Human EGF can effectively enhance EGF Receptor autophosphorylation.



Immobilized Human EGFR at 5 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human EGF with a linear range of 7-25ng/mL.



Recombinant Human EGF promotes the proliferation of BALB/c 3T3 mouse embryonic fibroblasts cells. The ED_{50} for this effect is typically 0.065-0.26 ng/mL, corresponding to a specific activity of 3.84×10^6 - 1.54×10^7 units/mg.