Recombinant Human EGF Protein

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Catalog No.: RP01030 Recombinant 2 Publications

Sequence Information

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

Tags C-hFc&His

Synonyms EGF;HOMG4;URG

Product Information

Purification

HEK293 cells ≥ 90 % as determined by SDS-

PAGE.

Calculated MW Observed MW

33.01 kDa 40 kDa

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Epidermal growth factor (EGF) is the founding member of the EGF family that also includes TGF-alpha, amphiregulin (AR), betacellulin (BTC), epiregulin (EPR), heparin binding EGF like growth factor (HB x005f

Basic Information

Description

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, 6×His 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 3.84×10⁶-1.54×10⁷units/mg.

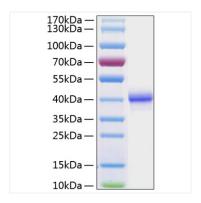
Storage

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

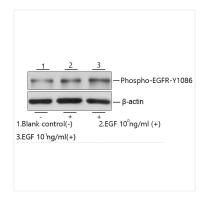
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

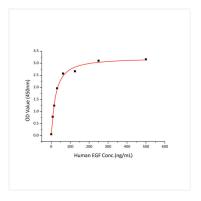
Validation Data



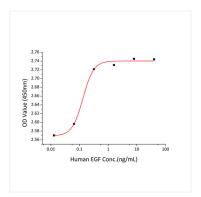
Recombinant Human EGF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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 μ g/mL (100 μ 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 $\times 10^7$ units/mg.