

Human EGF Protein

Cat. No. EGF-HM202

Description

Source	Recombinant Human EGF Protein is expressed from HEK293 with hFc tag at the N-Terminus. It contains Asn971-Arg1023.
Accession	P01133-1
Molecular Weight	The protein has a predicted MW of 32.52 kDa. Due to glycosylation, the protein migrates to 38-43 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

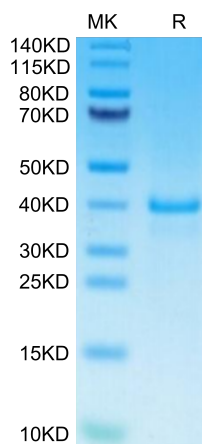
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

The epidermal growth factor (EGF) family of peptides encodes several proteins that can function as growth factors. The EGF-like peptides, with the exception of proteins of the EGF-CFC subfamily, bind and activate tyrosine kinase receptors that belong to the erbB family.

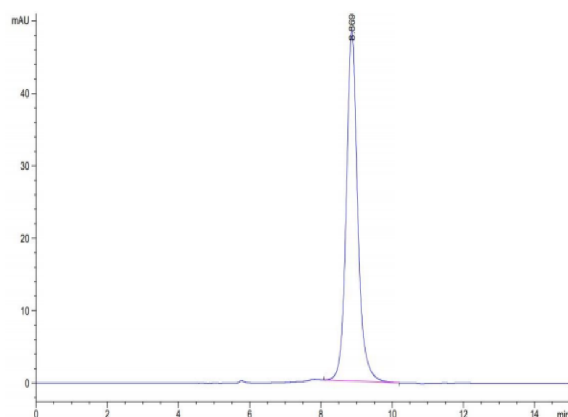
Assay Data

Bis-Tris PAGE



Human EGF on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



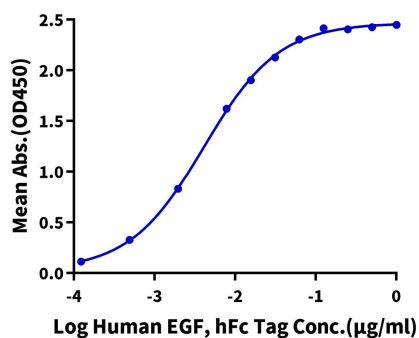
The purity of Human EGF is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

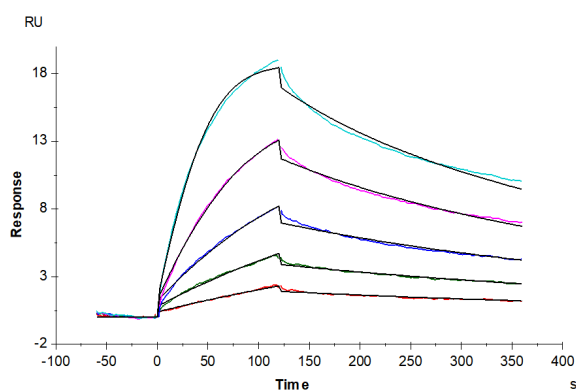
Human EGF, hFc Tag ELISA

0.1µg Biotinylated Human EGFR, His Tag Per Well



Immobilized Biotinylated Human EGFR, His Tag at 1µg/ml (100µl/well) on the streptavidin precoated plate (5µg/ml). Dose response curve for Human EGF, hFc Tag with the EC50 of 4.1ng/ml determined by ELISA (QC Test).

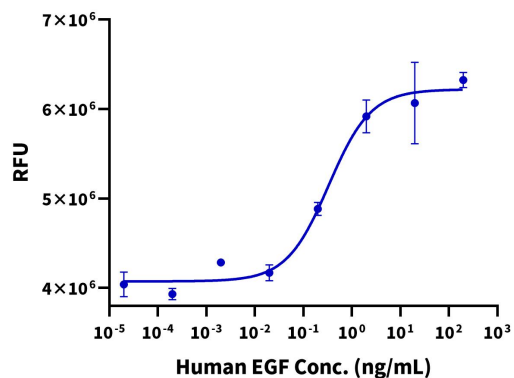
SPR Data



Human EGFR, His Tag captured on CM5 Chip via anti-his antibody can bind Human EGF, hFc Tag with an affinity constant of 0.39 nM as determined in SPR assay (Biacore T200).

Cell Based Assay

Recombinant Human EGF Bioactivity



Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 0.2 - 1.5 ng/mL.