

# Human EGF Protein

Cat. No. EGF-HM202

## Description

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

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days 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.

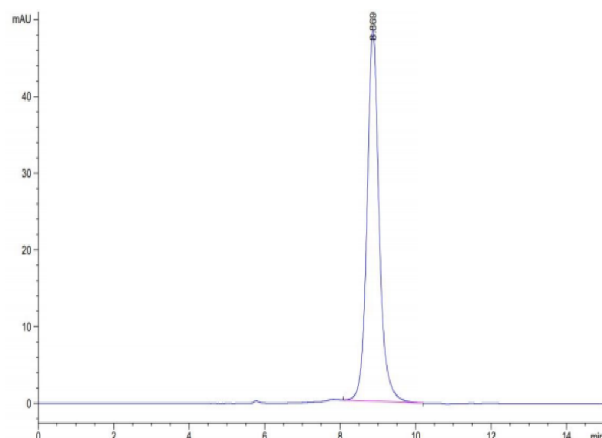
## Assay Data

### Tris-Bis PAGE



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

### SEC-HPLC



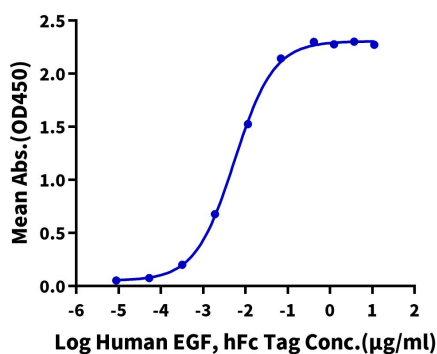
The purity of Human EGF is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

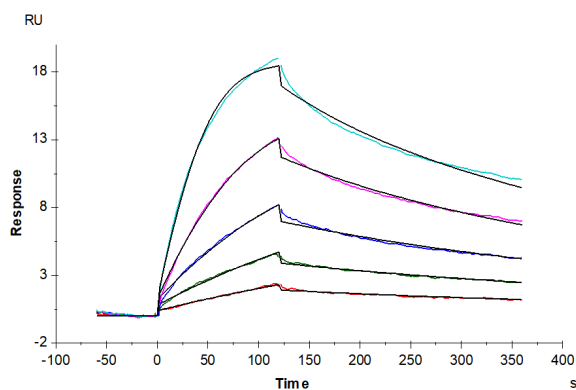
**Human EGF, hFc Tag ELISA**

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 5.5ng/ml determined by ELISA (QC Test).

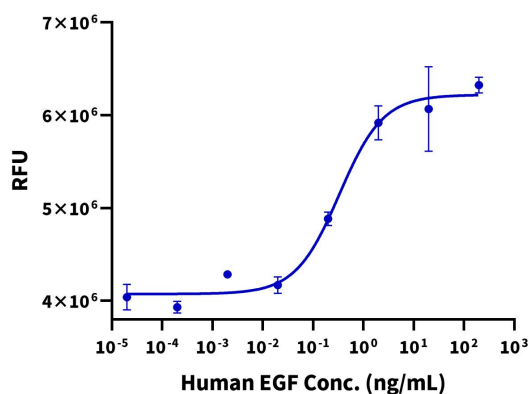
SPR Data



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.