

## Product datasheet

# Recombinant human EGF protein (Animal Free) ab9697

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### Description

<b>Product name</b>	Recombinant human EGF protein (Animal Free)	
<b>Biological activity</b>	The ED <sub>50</sub> , as determined by a cell proliferation assay using balb/c 3T3 cells, is ≤ 0.1 ng/ml, corresponding to a specific activity of ≥ 1 x 10 <sup>7</sup> units/mg.	
<b>Purity</b>	≥ 98 % SDS-PAGE. Sterile filtered. Greater than 98% pure by HPLC analyses.	
<b>Endotoxin level</b>	< 0.010 Eu/μg	
<b>Expression system</b>	Escherichia coli	
<b>Accession</b>	<a href="#">Q6QBS2</a>	
<b>Protein length</b>	Full length protein	
<b>Animal free</b>	Yes	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	NSDSECPLSH DGYCLHDGVC MYEALDKYA CNCVVG YIGE RCQYRDLKWW ELR	
<b>Predicted molecular weight</b>	6 kDa	
<b>Amino acids</b>	971 to 1023	
<b>Additional sequence information</b>	ab9697 is a globular protein containing 53 amino acid residues, including 2 intramolecular disulfide bonds.	

### Specifications

Our **Abpromise guarantee** covers the use of **ab9697** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	Western blot Cellular Activation SDS-PAGE HPLC
<b>Form</b>	Lyophilized

**Additional notes**

Manufactured using all non-animal reagents.

**Preparation and Storage****Stability and Storage**

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution**

Centrifuge the vial prior to opening. Reconstitute in 500ul sterile filtered water to a concentration of 1mg/ml.

**General Info****Function**

EGF stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. Magnesiotropic hormone that stimulates magnesium reabsorption in the renal distal convoluted tubule via engagement of EGFR and activation of the magnesium channel TRPM6. Can induce neurite outgrowth in motoneurons of the pond snail *Lymnaea stagnalis* in vitro (PubMed:10964941).

**Tissue specificity**

Expressed in kidney, salivary gland, cerebrum and prostate.

**Involvement in disease**

Hypomagnesemia 4

**Sequence similarities**

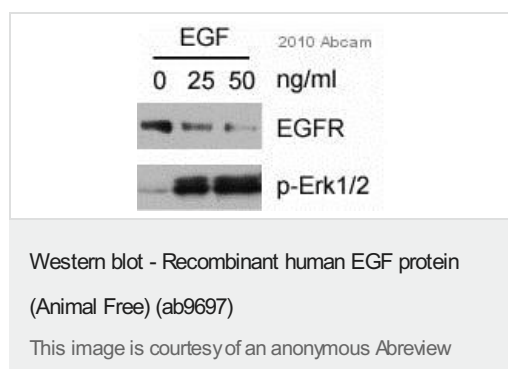
Contains 9 EGF-like domains.  
Contains 9 LDL-receptor class B repeats.

**Post-translational modifications**

O-glycosylated with core 1-like and core 2-like glycans. It is uncertain if Ser-954 or Thr-955 is O-glycosylated. The modification here shows glycan heterogeneity: HexHexNAc (major) and Hex2HexNAc2 (minor).

**Cellular localization**

Membrane.

**Images****All lanes :**

**Lane 1 :** Whole cell lysate of human skin fibroblasts starved overnight in serum-free medium

**Lane 2 :** Whole cell lysate of human skin fibroblasts starved overnight in serum-free medium and then incubated for 30 min with 25 ng/ml active EGF

**Lane 3 :** Whole cell lysate of human skin fibroblasts starved overnight in serum-free medium and then incubated for 30 min with 50 ng/ml active EGF

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes :** An HRP-conjugated Goat anti-rabbit IgG polyclonal at

1/10000 dilution

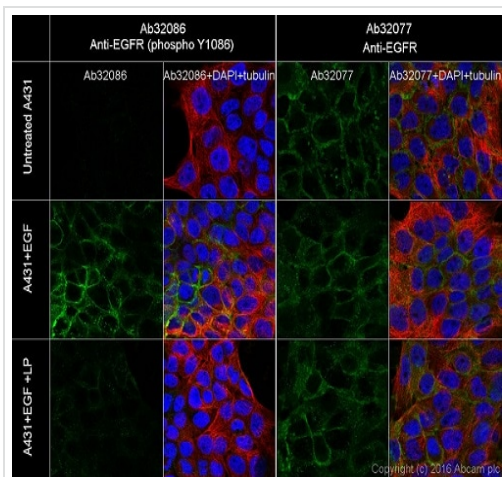
Developed using the ECL technique.

Performed under non-reducing conditions.

**Observed band size:** 42,44 kDa

**Exposure time:** 1 second

**Blocking Step:** 5% milk for 1 hour at 25°C



Immunocytochemistry/ Immunofluorescence -  
Recombinant human EGF protein (Animal Free)  
(ab9697)

Immunocytochemistry/ Immunofluorescence analysis of A431 (Human epidermoid carcinoma cell line) cells labeling EGFR with ab9697 at 1/100, 3 µg/ml. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% tritonX-100. **ab150077**, a AlexaFluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1000, 2 µg/ml. Cells were counterstained with **ab195889**, anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200, 2.5 µg/ml. Nuclear stain was DAPI (blue).

The green staining on the membrane was increased in the EGF (100ng/ml, 10min) treated A431 cells when compared with A431 cells without treatment. After LP treatment, the green signaling was obviously decreased.

For the pan antibody, there was no great difference after EGF (100ng/ml, 10min) or EGF (100ng/ml, 10min) + LP treatment. The data showed mostly membranous staining.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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