abcam

Product datasheet

Recombinant human EGF protein (Animal Free) ab9697

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Description

Product name	Recombinant human EGF protein (Animal Free)
Biological activity	The ED_{50},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 10^7 units/mg.
Purity	>= 98 % SDS-PAGE. Sterile filtered. Greater than 98% pure by HPLC analyses.
Endotoxin level	< 0.010 Eu/µg
Expression system	Escherichia coli
Accession	Q6QBS2
Protein length	Full length protein
Animal free	Yes
Nature	Recombinant
Species	Human
Sequence	NSDSECPLSH DGYCLHDGVC MYIEALDKYA CNCVVGYIGE RCQYRDLKWW ELR
Predicted molecular weight	6 kDa
Amino acids	971 to 1023
Additional sequence information	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.

Applications	Western blot Cellular Activation SDS-PAGE HPLC
Form	Lyophilized

Additional notes	Manufactured using all non-animal reagents.

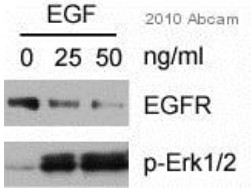
Preparation and Storage

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



Western blot - Recombinant human EGF protein (Animal Free) (ab9697)

This image is courtesy of an anonymous Abreview

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-conjugatede Goat anti-rabbit IgG polyclonal at

1/10000 dilution

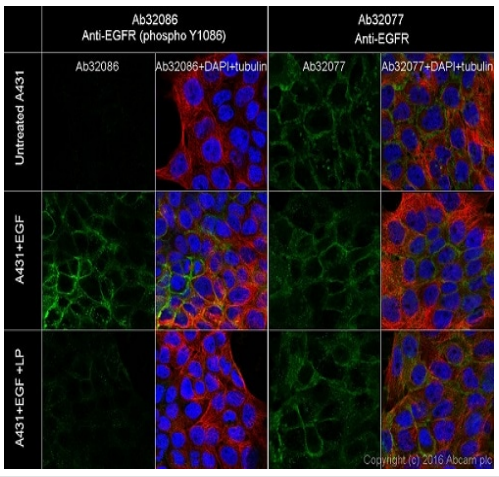
Developed using the ECL technique.

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.

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