Recombinant Rat EGF Protein

Catalog No.: RP02816

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Sequence Information

Species
Rat

Gene ID
25313

Swiss Prot
P07522

Tags
No tag

Synonyms
EGF,HOMG4,URG

Product Information

Source
E. coli

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
6.3 kDa

Observed MW
6-9 kDa

Endotoxin
Please contact us for more information.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

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.

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_x001e_EGF), epigen, and the neuregulins (NRG)-1 through -6. Members of this protein family have highly similar structural and functional characteristics. The 1207 amino acid (aa) human EGF precursor contains 9 EGF domains and 9 LDLR class B repeats. Human EGF is a 645-Da protein with 53 amino acid residues and three intramolecular disulfide bonds. EGF is a growth factor that stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. EGF is present in various body fluids, including blood, milk, urine, saliva, seminal fluid, pancreatic juice, cerebrospinal fluid, and amniotic fluid (4). Four ErbB (HER) family receptor tyrosine kinases including EGFR/ErbB1, ErbB2, ErbB3 and ErbB4, mediate responses to EGF family members (5). EGF binds ErbB1 and depending on the context, induces the formation of homodimers or heterodimers containing ErbB2. Dimerization results in autophosphorylation of the receptor at specific tyrosine residues to create docking sites for a variety of signaling molecules (5,?8). EGF seems regulated by dietary inorganic iodine and plays an important physiological role in the maintenance of oro-esophageal and gastric tissue integrity.

Basic Information

Description
Recombinant Rat EGF Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Asn974-Arg1026) of rat EGF (Accession #NP_036974.1) fused with no additional amino acid.

Activity
Measured in a cell proliferation assay using BALB/c 3T3 mouse fibroblasts. The ED_{50} for this effect is typically 0.05-0.3ng/mL.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

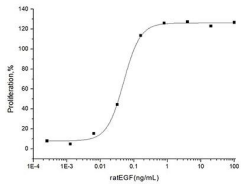
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

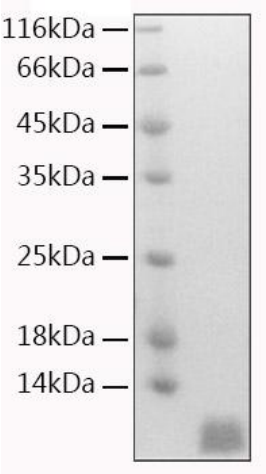
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Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



Measured in a cell proliferation assay using BALB/c 3T3 mouse fibroblasts.The ED_{50} for this effect is typically 0.05-0.3ng/mL.



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