

EGF recombinant protein

EGF Protein, Human, Recombinant (ECD, hFc Tag)

CATALOG #
AAA257429

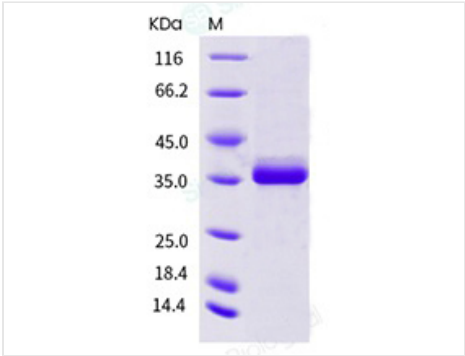
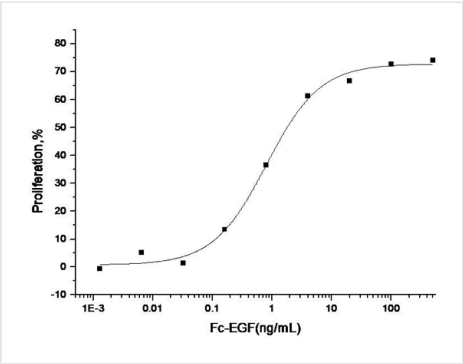
HOST
HEK293 Cells

PRODUCT SYNONYMS

EGF; EGF Protein; Human; Recombinant (ECD; hFc Tag); Human EGF/Epidermal Growth Factor Protein (Fc Tag); epidermal growth factor; Epidermal Growth Factor Protein; HOMG4 Protein; URG Protein; EGF recombinant protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90 % as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4 Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Sequence Positions	290aa
Sequence	Asn971-Arg 1023
Species	Human
Tag	hFc
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Glu
Protein Construction	JA DNA sequence encoding the mature soluble form of human EGF (NP_001954.2) (Asn 971-Arg 1023) was fused with the Fc region of human IgG1 at the N-terminus
Activity	Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 0.3-1.5ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Shipping: They are shipped out with blue ice pack



Application Data
Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 0.3-1.5 ng/mL.

Application Data

ADDITIONAL INFORMATION

Related Product Information for EGF recombinant protein	EGF is the founding member of the EGF-family of proteins. Members of this protein family have highly similar structural and functional characteristics. EGF contains 9 EGF-like domains and 9 LDL-receptor class B repeats. Human EGF is a 6045-Da protein with 53 amino acid residues and three intramolecular disulfide bonds. As a low-molecular-weight polypeptide, EGF was first purified from the mouse submandibular gland, but since then it was found in many human tissues including submandibular gland, parotid gland. It can also be found in human platelets, macrophages, urine, saliva, milk, and plasma. 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. It results in cellular proliferation, differentiation, and survival. Salivary EGF, which seems also regulated by dietary inorganic iodine, also plays an important physiological role in the maintenance of oro-esophageal and gastric tissue integrity. EGF acts by binding with high affinity to epidermal growth factor receptor on the cell surface and stimulating the intrinsic protein-tyrosine kinase activity of the receptor. The tyrosine kinase activity, in turn, initiates a signal transduction cascade that results in a variety of biochemical changes within the cell-a rise in intracellular calcium levels, increased glycolysis and protein synthesis, and increases in the expression of certain genes including the gene for EGFR-that ultimately lead to DNA synthesis and cell proliferation.
Product Categories/Family for EGF recombinant protein	EGFR Signaling Pathway
References	Chen JX, et al. (2011) Involvement of c-Src/STAT3 signal in EGF-induced proliferation of rat spermatogonial stem cells. Mol Cell Biochem. 358(1-2):67-73.Guo Y, et al. (2012) Correlations among ERCC1, XPB, UBE2I, EGF, TAL2 and ILF3 revealed by gene signatures of histological subtypes of patients with epithelial ovarian cancer. Oncol Rep. 27(1):286-92.Kim S, et al. (2012) Smad7 acts as a negative regulator of the epidermal growth factor (EGF) signaling pathway in breast cancer cells. Cancer Lett. 314(2):147-54.Chatterton RT Jr, et al. (2010) Breast ductal lavage for assessment of breast cancer biomarkers. Horm Cancer. 1(4):197-204.

NCBI AND UNIPROT INFORMATION

NCBI GI #	166362728
NCBI GeneID	1950
NCBI Accession #	NP_001954.2
NCBI GenBank Nucleotide #	NM_001963.4
UniProt Accession #	P01133; Q52LZ6; B4DRK7; E7EVD2; E9PBF0
Molecular Weight	129,746 Da
NCBI Official Full Name	pro-epidermal growth factor isoform 1 preproprotein
NCBI Official Synonym Full Names	epidermal growth factor
NCBI Official Symbol	EGF

NCBI Official Synonym Symbols	URG; HOMG4
NCBI Protein Information	pro-epidermal growth factor; beta-urogastrone
UniProt Protein Name	Pro-epidermal growth factor
UniProt Gene Name	EGF
UniProt Synonym Gene Names	EGF
UniProt Entry Name	EGF_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/egf-recombinant-protein-hek293-cells/257429>