

Human Epidermal Growth Factor (EGF) Protein, Recombinant

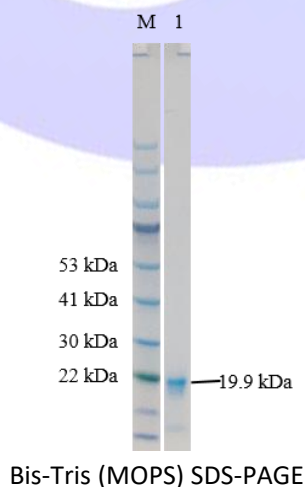
I. For sale

Product name	Catalog #	Size
Human Epidermal Growth Factor (EGF) Protein, Recombinant	P01E0032	10ug
		50ug
		500ug
		1mg

II. Product Description

Other Names	Pro-epidermal growth factor, EGF
Protein & NCBI Number	P01133, NM_001963.6
Host	E.coli
Express Region	Asn971-Arg1023
Protein Sequence	NSDSECLSHDGYCLHDGVCMYIEALDKYACNCVVG YIGERCQYRDLKWWELR
Molecular Weight	The protein consists of 174 amino acids (including the fusion tag), with a predicted molecular weight of 19.9kDa, which matches the actual molecular weight.
Fusion Tag	6xHis-SUMO (N-terminus)
Purity	≥90% SDS-PAGE
Physical Property	Liquid
Components	0.01M PBS+20% glycerol, sterile solution.
Storage & Stability	After aliquoting, the stability of the samples can be maintained for up to 6 months at -20°C to -80°C, avoiding repeated freeze-thaw cycles.
Applications	Antibody preparation, immunoassay (ELISA, WB), subcellular localization and interaction protein identification, etc.
Lead Time	5 to 10 business days; 2 to 3 days for stock products

Figure. SDS-PAGE





III. Storage and Transportation

Transport at 2-8°C, product is stable for up to twelve months from date of receipt under sterile conditions at -20°C to -80°C.

IV. Notes

This product is for research use only. Please wear laboratory attire and disposable gloves when handling.

V. Background

Human epidermal growth factor (EGF) is a 6-kDa protein with 53 amino acid residues and three intramolecular disulfide bonds. By binding to the homologous receptor EGFR on the cell surface, EGF can stimulate cell growth, differentiation, and survival. EGF stimulates the growth of various epidermal and epithelial tissues both in vivo and in vitro, and it also stimulates the growth of some fibroblasts in cell culture. This stimulation leads to ligand-induced dimerization, which activates the intrinsic protein tyrosine kinase activity of the receptor.

The tyrosine kinase activity, in turn, initiates a signaling cascade that results in a variety of biochemical changes within the cell: an increase in intracellular calcium levels, an increase in glycolysis and protein synthesis, an increase in the expression of certain genes (including the EGFR gene), and ultimately, DNA synthesis and cell proliferation.

EGF was initially described as a secretory peptide found in mouse submandibular glands and human urine. Subsequently, EGF has been found in many human tissues and fluids, including platelets, urine, saliva, milk, tears, plasma, submandibular glands, and parotid glands. Initially, human EGF was referred to as urogastrone.

VI. References

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