

Recombinant Rat Epidermal Growth Factor (Rat EGF)

Product Information

Product Name	Cat#	Size
Recombinant Rat Epidermal Growth Factor	92705ES60	100 µg
(Rat EGF)	92705ES76	500 µg

Product Description

Epidermal Growth Factor (EGF) is a small growth factor containing 53 amino acid residues capable of stimulating the proliferation of both mesenchymal and epithelial cells. The mature protein is much smaller, only 53 aa, and is generated by proteolytic cleavage of the EGF domain proximal to the transmembrane region. EGF is well conserved across mammals with mature human EGF 70% identical to mature mouse and rat EGF. EGF and fibroblast growth factor 2 (FGF-2) induce the proliferation of neural precursor cells isolated from specific regions of the embryonic and adult brain. EGF and somatomedin C-supplemented medium was shown to be capable of replacing the progression activity of 5% platelet-poor plasma (PPP) for competent density-inhibited BALB/c-3T3 cells. Biological activities ascribed to EGF include epithelial development, angiogenesis, inhibition of gastric acid secretion, fibroblast proliferation, and colony formation of epidermal cells in culture.

Product Properties

Synonyms	beta-urogastrone, EGF, epidermal growth factor, hEGF, HOMG4, URG, Urogastrone
Accession	P07522
GeneID	25313
Source	E.coli-derived rat EGF, Asn974-Arg1026.
Molecular Weight	Approximately 6.1 kDa.
AA Sequence	NSNTGCPPSY DGYCLNGGVC MYVESVDYRV CNCVIGYIGE RCQHRDLRWW KLR
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	>97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 0.1 ng/mL, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!