Recombinant Mouse EGF

Catalog # FL015

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rMuEGF protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Mouse
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using mouse Balb/c 3 T3 cells is less than 0.1 ng/ml, corresponding to a specific activity of ≥ 1.0×10^7 IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
Accession #	P01132 Asn977-Arg1029
Amino acid sequence	NSYPGCPSSYDGYCLNGGVCMHIESLDSYTCNCVIGYSGDRCQTRDLRWWELR
Molecular weight	Approximately 6.0 kDa, a single non-glycosylated polypeptide chain containing 53 amino acids.
Synonyms	Urogastrone, URG
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 12 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Mouse EGF is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Epidermal Growth Factor was originally discovered in crude preparations of nerve growth factor prepared from mouse submaxillary glands as an activity that induced early eyelid opening, incisor eruption, hair growth inhibition, and stunting of growth when injected into newborn mice. It is prototypic of a family of growth factors that are derived from membrane-anchored precursors. All members of this family are characterized by the presence of at least one EGF structural unit (defined by the presence of a conserved 6 cysteine motif that forms three disulfide bonds) in their extracellular domain. EGF is initially synthesized as a 130 kDa precursor transmembrane protein containing 9 EGF units. The mature soluble EGF sequence corresponds to the EGF unit located proximal to the transmembrane domain. The membrane EGF precursor is capable of binding to the EGF receptor and was reported to be biologically active. Mature mouse EGF shares 70% a.a. sequence identity with mature human EGF. Additionally, EGF has been shown to inhibit gastric secretion, and to be involved in wound healing. EGF signals through a receptor known as c-erbB, which is a class I tyrosine kinase receptor. This receptor also binds with TGF-α and VGF. Recombinant Mouse EGF is a 6.0kDa globular protein containing 53 amino acid residues, including 3 intramolecular disulfide bonds.

Validation Images