

**Recombinant Human Epidermal Growth Factor  
(rhEGF)  
Catalog Number: 105-04**

<b>Description</b>	EGF 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. EGF 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.
<b>Synonyms</b>	Urogastrone, URG
<b>AA Sequence</b>	NSDSECPLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW ELR
<b>Source</b>	<i>Escherichia coli</i>
<b>Molecular Weight</b>	6.2 kDa, a single non- glycosylated polypeptide chain containing 53 amino acids.
<b>Purity</b>	>98% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	Fully biologically active. The ED <sub>50</sub> is < 0.1ng/ml, corresponding to a specific activity of > 1 x 10 <sup>7</sup> units/ mg, as determined by the proliferation of murine BALB/c 3T3 cells.
<b>Physical Appearance</b>	White lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
<b>Endotoxin</b>	< 1EU/µg of growth factor as determined by LAL method.
<b>Reconstitution</b>	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
<b>Storage</b>	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
<b>Usage</b>	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.