

Recombinant Human Epidermal Growth Factor (Hu EGF)








Publication Part Number MAN0004527







Rev. 1.00

Catalog Number:	PHG0311L
Quantity:	100 µg
Lot Number:	See product label.
Concentration:	1.0 mg/mL
Molecular Weight:	6.2 kDa
Purity:	≥95% as determined by SDS-PAGE analysis.
Amino Acid Sequence:	NSDSECLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE RCQYRDLKWW ELR
Biological Activity:	ED ₅₀ range = ≤0.4 ng/ml (Specific Activity ≥2.5 × 10 ⁶ units/mg), determined by the dose dependent proliferation of mouse BALB/3T3 cells. Optimal concentration for individual application should be determined by a dose response assay.
Biological Function:	Epidermal growth factor plays an important role in the regulation of cell growth especially for epithelial and mesenchymal cells, proliferation, and differentiation. EGF consists of 53 amino acid residues and is a member of a family of growth factors characterized by a conserved amino acid sequence containing 6 cysteine residues which form three intramolecular disulfide bonds. The EGF precursor exists as a membrane bound molecule which is proteolytically cleaved to generate the 53-amino acid protein that stimulates cells to divide.
Formulation:	Purified protein in 20 mM Citrate Buffer pH 3.5, carrier free.
Sterility:	Filtered prior to packaging through a 0.22 micron sterile filter.
Endotoxin:	< 0.1 ng/µg
Production:	Recombinant human EGF is produced in <i>E. coli</i> and purified via sequential chromatography.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Store at ≤ -20°C. Upon initial thawing, we recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. The contents should then be apportioned into working aliquots and stored at ≤ -20°C. Avoid repeated freeze/thaw cycles. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	<p>Gregory, H. (1975) Isolation and structure of urogastrone and its relationship to epidermal growth factor. <i>Nature</i> 257(5524):325–327.</p> <p>Ediger, T.L. and M.L. Toews (2000) Synergistic stimulation of airway smooth muscle cell mitogenesis. <i>J. Pharmacol. Exp. Therapeut.</i> 294:1076–1082.</p> <p>French, J.D., R.C. Tschumper, and D.F. Jelinek (2002) Analysis of IL-6-mediated growth control of myeloma cells using a gp130 chimeric receptor approach. <i>Leukemia</i> 16(6):1189–1196.</p> <p>French, J.D., D.K. Walters, and D.F. Jelinek (2003) Transactivation of gp130 in myeloma cells. <i>J. Immunol.</i> 170(7):3717–3723.</p> <p>Liesveld, J.L., K. Rosell, N. Panoskaltis, T. Belanger, A. Harbol, and C.N. Abboud (2001) Response of human CD34(+) cells to CXC, CC, and CX3C chemokines: Implications for cell migration and activation. <i>J. Hematology and Stem Cell Research</i> 10(5):643–655.</p> <p>Stephens, J.M., S.J. Lumpkin, and J.B. Fishman (1998) Activation of signal transducers and activators of transcription 1 and 3 by leukemia inhibitory factor, oncostatin-M, and interferon-gamma in adipocytes. <i>J. Biol. Chem.</i> 273(47):31,408–31,416.</p>

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

Limited Use Label License: Research Use Only

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact outlicensing@lifetech.com or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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