



**Catalog No. 03-001EX**

## Human Epidermal Growth Factor (EGF)

### BACKGROUND

**EGF** is a polypeptide growth hormone which plays an important role in the regulation of growth, proliferation, and differentiation of a wide range of cells by binding to its receptor EGFR (epidermal growth factor receptor). Through its binding to cell surface receptors, **EGF** activates an extensive network of signal transduction pathways that include activation of the PI3K/AKT, RAS/ERK and JAK/STAT pathways.

The full-length **human EGF** was expressed in *E.coli* and highly purified by the propriety chromatographic procedures. This product has the same amino acid sequence with the mature human EGF (6.35 kDa) and has no tag attached.

<b>Form</b>	1.0 mg/ml in 10mM Na-phosphate (pH7.2), 50% glycerol, filter-sterilized
<b>Volume</b>	50 µg
<b>Purification</b>	>95% as determined by SDS-PAGE (CBB staining)

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<b>Application notes</b>	<ol style="list-style-type: none"><li>1. EGF is commonly used as a supplement in serum-free or reduced serum media for culture of mammalian cells.</li><li>2. Studies of the human EGF receptor, transmembrane signaling and protein phosphorylation</li><li>3. Western blotting control for anti-EGF antibodies</li><li>4. Acceleration of the healing process of epidermis damage on skin, cornea, etc.</li><li>5. Widely used in cosmetics, such as whitening, anti-wrinkle, anti-aging, etc.</li></ol>
<b>Activity</b>	The ED50 as determined by a cell proliferation assay using MTS assay kit (CellTiter 96 AQueous Assay, Promega) with NHEK cells (normal human epidermal keratinocytes) was < 0.1 ng/ml, corresponding to a specific activity of < 1 x 10 <sup>7</sup> units/mg.
<b>Data Link</b>	Gene ID: <a href="#">1950</a> , Gene Sequence: <a href="#">AY548762</a> , Amino Acid Sequence: <a href="#">AAS83395</a>
<b>Storage</b>	-20°C (for long-term storage, -70°C)
<b>References</b>	<ol style="list-style-type: none"><li>1. Carpenter G &amp; Cohen S (1990) "Epidermal growth factor." <i>J Biol Chem</i> <b>265</b>:7709-7712 PMID: <a href="#">2186024</a></li><li>2. Cohen S, Carpenter G (1975) "Human epidermal growth factor: Isolation and chemical and biological properties." <i>Proc Natl Acad Sci USA</i> <b>72</b>: 1317-1321 PMID: <a href="#">1055407</a></li></ol>
<b>Related products</b>	# <a href="#">03-003EX</a> human FGF-1 # <a href="#">03-005EX</a> human FGF-7

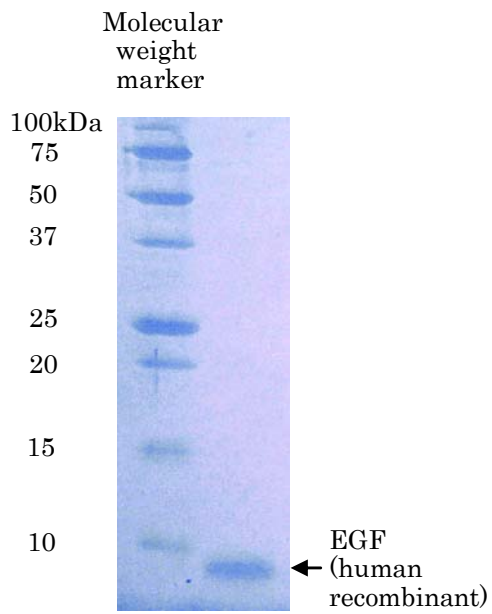


Fig. 1. SDS-PAGE of human EGF

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COSMO BIO Co., LTD.  
Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

URL: <http://www.cosmobio.co.jp> e-mail: [export@cosmobio.co.jp](mailto:export@cosmobio.co.jp)  
[Outside Japan] Phone : +81-3-5632-9617 [国内連絡先] Phone : +81-3-5632-9610  
FAX : +81-3-5632-9618 FAX : +81-3-5632-9619