



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.

Form	1.0 mg/ml in 10mM Na-phosphate (pH7.2), 50% glycerol, filter-sterilized
Volume	5 × 50 µg
Purification	>95% as determined by SDS-PAGE (CBB staining)

Application notes	<ol style="list-style-type: none">1. EGF is commonly used as a supplement in serum-free or reduced serum media for culture of mammalian cells.2. Studies of the human EGF receptor, transmembrane signaling and protein phosphorylation3. Western blotting control for anti-EGF antibodies4. Acceleration of the healing process of epidermis damage on skin, cornea, etc.5. Widely used in cosmetics, such as whitening, anti-wrinkle, anti-aging, etc.
Activity	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 × 10 ⁷ units/mg.
Data Link	Gene ID: 1950 , Gene Sequence: AY548762 , Amino Acid Sequence: AAS83395
Storage	-20°C (for long-term storage, -70°C)
References	<ol style="list-style-type: none">1. Carpenter G & Cohen S (1990) "Epidermal growth factor." <i>J Biol Chem</i> 265:7709-7712 PMID: 21860242. Cohen S, Carpenter G (1975) "Human epidermal growth factor: Isolation and chemical and biological properties." <i>Proc Natl Acad Sci USA</i> 72: 1317-1321 PMID: 1055407
Related products	# 03-003-5-EX human FGF-1 # 03-005-5-EX human FGF-7

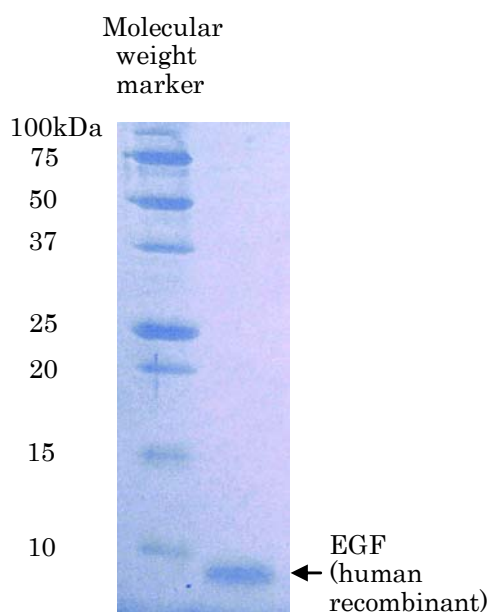


Fig. 1. SDS-PAGE of human EGF

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