

## Human Epidermal Growth Factor (EGF)

03-001 50 µg, 03-001-5 5 x 50 µg

**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.

### Applications

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 phosphorylation
3. Western blotting control for anti-EGF antibodies
4. 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.

### Specification

**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 x 10<sup>7</sup> units/mg.

**Purity:** >95% as determined by SDS-PAGE (CBB staining)

**Form:** 1.0 mg/ml in 10mM Na-phosphate (pH7.2), 50% glycerol, filter-sterilized

**Storage:** -20°C (for long-term storage, -70°C)

**Data Link:** Gene ID: [1950](#), Gene Sequence: [AY548762](#),

Amino Acid Sequence: [AAS83395](#)

### References

1. Carpenter G & Cohen S (1990) "Epidermal growth factor." *J Biol Chem* **265**:7709-7712 PMID: [2186024](#)
2. Cohen S, Carpenter G (1975) "Human epidermal growth factor: Isolation and chemical and biological properties." *Proc Natl Acad Sci USA* **72**: 1317-1321 PMID: [1055407](#)

### Related products

#03-003 human FGF-1

#03-005 human FGF-7

\*Inquire for the bulk supply of EGF with [info@bioacademia.co.jp](mailto:info@bioacademia.co.jp)

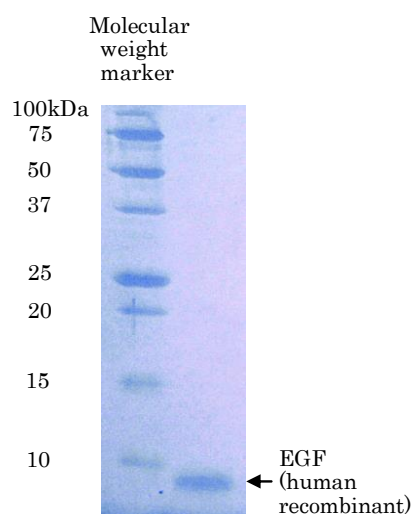


Fig. 1. SDS-PAGE of human EGF