

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant EGF, Rat

Catalog Number: BK0028-1mg

Source: Escherichia coli.

Quantity: 1mg

Description:

Epidermal Growth Factor (EGF) is a cytokine with 53 amino acids, originally found in mouse submaxillary gland. EGF binds to EGF receptors, ErbB1 and B4, and causes them to be dimerized and phosphorylated. The dimerized and phosphorylated EGFR can bind to several intracellular targets, such as phospholipase C γ and Ras-GTPase-acting protein, and achieve a series of cascade reactions. EGF is involved in the regulation of cell proliferation and differentiation, and is up-regulated during wound healing, accelerating reepithelialization and increasing tensile strength. It also stimulates neurite outgrowth and increases the uptake of dopamine in the central nervous system. On the other hand, EGF is up-regulated in the glioma cancer, and related to the length of survivals of the patients. Recombinant rat Epidermal Growth Factor (rrEGF) produced in E.coli is a single non-glycosylated polypeptide chain containing 54 amino acids. A fully biologically active molecule, rrEGF has a molecular mass of 6.3 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

6.3 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE analysis.

Biological Activity:

ED50 < 0.08 ng/mL, measured by a cell proliferation

assay using 3T3 cells, corresponding to a specific activity of > 1.25 $\times 10^7$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MNSNTGCPPSYDGYCLNGGVCMYVESVDRYV-
SYDGYCLNGGVCMYVESVDRYV-
CNCVIGYIGERCQHRDLRWWKLR

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/mL.

Storage:

Lyophilized recombinant rat Epidermal Growth Factor (rrEGF) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rrEGF should be stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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