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Mouse Epidermal Growth Factor (mEGF)

50 µg

For Research Use Only. Not for Use in Diagnostic Procedures.

MW (kDa):
6

UniProt ID:
#P01132

Entrez-Gene Id:
13645

Background

EGF is produced by epithelial cells, fibroblasts, and many other cell types (1,2). Low molecular weight soluble EGF is generated through proteolysis of a larger ~130,000 molecular weight transmembrane precursor (1,2). Both soluble and membrane forms of EGF are active (2). EGF induces proliferation, differentiation, and survival of many cell types including tumor-derived cells (1-3). There are multiple members of the EGF family and multiple members of the ErbB/HER EGF receptor family. EGF binds to ErbB1/HER1 and induces homodimerization or induces heterodimerization with other ErbB/HER members (1). Binding of EGF signals through the MAPK, PI3K/Akt, and Stat5 pathways (1). EGF, EGF family members, EGF receptors, and their signaling pathways are involved in many cancers and are targets for therapeutic intervention (1,2).

Endotoxin

Less than 0.01 ng endotoxin/1 µg mEGF.

Purity

>98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant mEGF. All lots are greater than 98% pure.

Source / Purification

Recombinant mouse EGF (mEGF) Asn977-Arg1029 (Accession #NP_034243) was produced in *E. coli* at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant mEGF was determined in an NIH/3T3 cell proliferation assay. The ED50 of each lot is between 10-250 pg/ml.

Background References

1. Citri, A. and Yarden, Y. (2006) *Nat Rev Mol Cell Biol* 7, 505-16.
2. Higashiyama, S. et al. (2008) *Cancer Sci* 99, 214-20.
3. Xian, C.J. (2007) *Endocr Rev* 28, 284-96.

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