

Product Information

Amphiregulin

Human, recombinant
Expressed in *E. coli*

Product No. **A 7080**

Product Description

Recombinant human amphiregulin (AR) is produced by a DNA sequence encoding a 98 amino acid residue form of mature human amphiregulin corresponding to amino acid residues 101-198 expressed in *E. coli*.¹ It has a predicted molecular weight of ~11 kDa.

Amphiregulin is a glycoprotein produced in response to treatment of the human breast carcinoma cell line MCF-7 with phorbol-12-myristate-13-acetate (PMA). Phorbol-12-myristate-13-acetate is a potent tumor promoter and protein kinase C activator.² Amphiregulin is a member of the EGF family of cytokine, which is comprised of EGF, TGF- α , HB-EGF, and heregulin. Amphiregulin stimulates the proliferation of mouse and human keratinocytes, mammary epithelial cells, and fibroblasts.

Reagent

Lyophilized from a 0.2 μ m filtered solution of phosphate buffered saline containing 5 mg of bovine serum albumin.

Storage/Stability

Store at -20°C . After reconstitution, the product may be stored at 2-8 $^{\circ}\text{C}$ for up to one month. For extended storage, freeze in working aliquots at -70°C or -20°C .

Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Preparation Instructions

Reconstitute the contents of the vial by adding sterile phosphate buffered saline containing 0.1% HSA or BSA to a concentration of no less than 10 $\mu\text{g}/\text{mL}$.

Product Profile

The biological activity of recombinant human amphiregulin is measured by its ability to stimulate the proliferation of a mouse fibroblast cell line, BALB/3T3.³ The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: > 97% as determined by SDS-PAGE and visualized by silver stain.

References

1. Plowman, G.D., et al., *Mol. Cell. Biol.*, **10**, 1969 (1990).
2. Shoyab, M., et al., *Proc. Natl. Acad. Sci. USA*, **85**, 6528 (1988).
3. Marquardt, H., et al., *Science*, **223**, 1079 (1984).

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