



User Manual

Amphiregulin (AREG) (Human)

Cat. No. HEOPP-01033



Description:

Amphiregulin is an EGF related growth factor that signals through the EGF/TGF- α receptor, and stimulates growth of keratinocytes, epithelial cells and some fibroblasts. Amphiregulin also inhibits the growth of certain carcinoma cell lines. Synthesized as a transmembrane protein, Amphiregulin's extracellular domain is proteolytically processed to release the mature protein. There are 6 conserved cysteine residues, which form 3 intramolecular disulfide bonds essential for biological activity.

Source:

Escherichia coli

Unit:

1 mg

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $< -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Formulation:

Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.

Storage:

This lyophilized preparation is stable at 2-8 $^{\circ}\text{C}$, but should be kept at -20 $^{\circ}\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}\text{C}$ to -70 $^{\circ}\text{C}$. Avoid repeated freeze/thaw cycles.

Molecular Weight:

Approximately 11.3 kDa, a single non-glycosylated polypeptide chain containing 98 amino

acid residues.

Endotoxin:

Less than 1 EU/ μ g of ARGE as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 15 ng/mL, corresponding to a specific activity of $> 6.67 \times 10^4$ IU/mg.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

SVRVEQVVKP PQNKTESENT SDKPKRKKKG GKNGKNRRNR KKKNPCNAEF
QNFCIHGECK YIEHLEAVTC KCQQEYFGER CGEKSMKTHS MIDSSLSK

Purity:

$> 97\%$ by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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