

Recombinant Human Amphiregulin

#R00140

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.

- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Amphiregulin is an EGF related growth factor and was originally isolated from the conditioned media of a PMA-treated MCF-7 human breast carcinoma cell line. It is mainly expressed in numerous carcinoma cell lines and the epithelial cells of various human tissues including colon, stomach, breast, ovary, kidney, etc. 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. Amphiregulin signals through the EGF/TGF- α receptor, and stimulates growth of keratinocytes, epithelial cells and some fibroblasts. It also inhibits the growth of certain carcinoma cell lines. Mutations in this encoded protein are associated with a psoriasis-like skin phenotype.

AA Sequence

SVRVEQVVKPPQNKTESENTSDKPKRKKKGKNGK
NRRNRKKKNPCNAEFQNFCEIHGECKYIEHLEAVTCKC
QQEYFGERCGEKSMKTHSMIDSSLSK

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 $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	AR, AREG, Colorectum Cell-derived Growth Factor, CRDGF
Accession	P15514
GeneID	374
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 11.3 kDa, a single non-glycosylated polypeptide chain containing 98 amino acid residues.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine Balb/c 3T3 cells is between 5-10

	ng/ml.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuAmphiregulin as determined by LAL method.