

Active Recombinant Human Amphiregulin

Cat. No. AREG-134H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Amphiregulin encoding the human Amphiregulin protein sequence (containing the signal peptide, N- and C-terminal propeptide and the mature Amphiregulin sequence) was expressed in modified <i>human 293 cells</i> . Proteolytic processing of the expressed membrane-bound precursor protein generates mature soluble Amphiregulin.
Species	Human
Source	HEK293
Description	Amphiregulin is an epidermal growth factor (EGF)-related glycoprotein that is expressed in a variety of tissues including ovary, placenta, lung, kidney, stomach, colon and breast. As an EGF-related growth factor, Amphiregulin is involved in the differentiation and proliferation of a wide range of cell types and these actions are mediated through binding to the EGF receptor.
Amino Acid Sequence	VVKPPQNKTESENTSDKPKRKKKGGKNGKNRRNRKKKNPCNAEFQNFQNCIHGECKYI EHLEAVTCKCQQEYFGERCGEKSMK.
Molecular Mass	Under reducing conditions Amphiregulin (mature form) migrates as a broad band between 17.6 and 23.4 kDa on SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with unmodified Amphiregulin polypeptide that has a predicted monomeric molecular mass of 9.07 kDa.
% Carbohydrate	Purified Amphiregulin (mature form) consists of 25–50% carbohydrate by weight.

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Glycosylation	Amphiregulin (mature form) contains N- and O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE, visualized by Coomassie Brilliant Blue.
Formulation	When reconstituted in 0.5 ml sterile 5mM acetic acid, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile 5mM acetic acid be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, with longer-term storage in aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
Activity	The ED ₅₀ of Amphiregulin (mature form) is typically 10–15 ng/ml as measured in a cell proliferation assay using the murine Balb/3T3 fibroblast cell line.

GENE INFORMATION

Gene Name	EG amphiregulin [Homo sapiens]
Synonyms	AREG; amphiregulin; AR; SDGF; CRDGF; MGC13647; schwannoma-derived growth factor; colorectum cell-derived growth factor; OTTHUMP00000160473
Gene ID	374
mRNA Refseq	NM_001657
Protein Refseq	NP_001648
UniProt ID	P15514

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Chromosome Location	4q13-q21
MIM	104640
Pathway	ErbB signaling pathway
Function	cytokine activity; growth factor activity

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