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# Human Amphiregulin Recombinant Protein

10 µg

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**For Research Use Only. Not for Use in Diagnostic Procedures.****MW (kDa):**  
10.1**UniProt ID:**  
#P15514**Entrez-Gene Id:**  
374**Background**

Amphiregulin (AREG) is essential for mammary ductal development and is expressed in many parts of the body, such as the ovary, placenta, pancreas, breast, lung, and spleen (1,2). Studies on preneoplastic human breast tissue and breast cancer cell lines suggest a significant role for amphiregulin in driving human breast cancer progression (1). Amphiregulin interacts with the epidermal growth factor (EGF) receptor to promote the growth of normal epithelial cells (3). It drives the proliferation of fibroblasts and production of cytokines interleukin 8 (IL-8) and vascular endothelial growth factor (VEGF) which suggests a proinflammatory role as observed in rheumatoid arthritis patients (4).

**Endotoxin**

Endotoxin levels are less than or equal to 1 EU / 1 µg hAmphiregulin.

**Purity**

A greater than or equal to 95% purity was determined by SDS-PAGE.

**Source / Purification**

Recombinant human Amphiregulin was expressed in *E. coli* and is supplied in a lyophilized form.

**Bioactivity**

The bioactivity of recombinant hAmphiregulin was determined in a 3T3 cell proliferation assay. The ED<sub>50</sub> of each lot is less than or equal to 20 ng/mL.

**Background References**

1. McBryan, J. et al. (2008) *J Mammary Gland Biol Neoplasia* 13, 159-69.
2. Busser, B. et al. (2011) *Biochim Biophys Acta* 1816, 119-31.
3. Shoyab, M. et al. (1989) *Science* 243, 1074-6.
4. Yamane, S. et al. (2008) *J Inflamm (Lond)* 5, 5.

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