

Store at
-20°C

Human Amphiregulin Recombinant Protein

#42953

10 µg

Support: +1-978-867-2388 (U.S.)
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orders@cellsignal.comEntrez-Gene ID #374
UniProt ID #P15514

For Research Use Only. Not For Use In Diagnostic Procedures.

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).

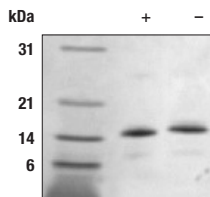
Molecular Weight: 10.1 kDa

Endotoxin: Endotoxin levels are ≤ 1 EU / 1 µg hAmphiregulin.

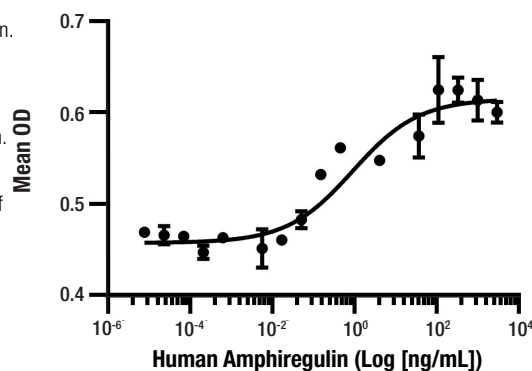
Purity: $\geq 95\%$ purity was determined by SDS-PAGE.

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_{50} of each lot is ≤ 20 ng/mL.



The purity of Human Amphiregulin Recombinant Protein was determined by SDS-PAGE of 1 µg reduced (+) and non-reduced (-) recombinant hAmphiregulin and staining with Coomassie Blue.



Serial dilutions of Human Amphiregulin Recombinant Protein were added to 3T3 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED_{50} .

Storage: Human Amphiregulin Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/mL which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

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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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA—Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.