

Amphiregulin Active Protein | AREG active protein

Active Amphiregulin (AREG)

CATALOG #
AAA150047

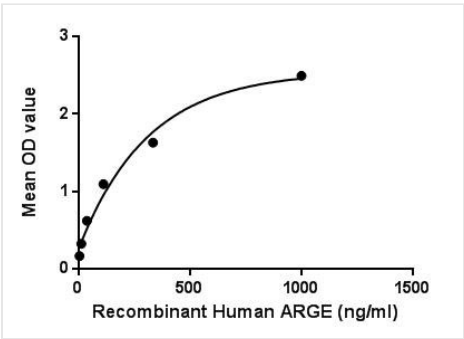
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Amphiregulin; Active Amphiregulin (AREG); AR; CRDGF; SDGF; Colorectum Cell-Derived Growth Factor; Schwannoma-Derived Growth Factor; AREG active protein

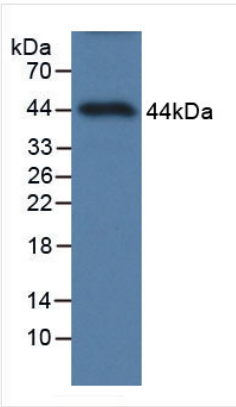
PRODUCT SPECIFICATIONS

Purity/Purification	>90%
Form/Format	Freeze-dried powder PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence Positions	Ser20~Asp100
Sequence Length	252
Applicable Applications for AREG active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His and GST Tag
Isoelectric Point	5.1
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

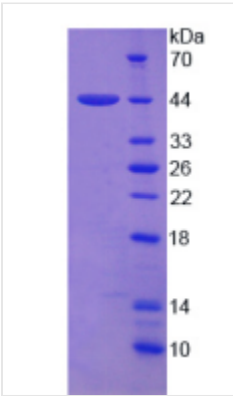


Bioactivity

Amphiregulin, also known as AREG, is an autocrine growth factor as well as a mitogen for astrocytes, Schwann cells, fibroblasts. It is related to epidermal growth factor (EGF) and transforming growth factor alpha (TGF- α). This protein interacts with the Epidermal growth factor receptor (EGFR) to promote the growth of normal epithelial cells. Besides, Epidermal Growth Factor Receptor (EGFR) has been identified as an interactor of ARGE, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ARGE and recombinant human EGFR. Briefly, ARGE were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EGFR-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-ARGE pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of ARGE and EGFR was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of ARGE with EGFR.



WB (Western Blot)
Figure. Western Blot



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for AREG active protein	Cytokine; Tumor immunity
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502199
NCBI GeneID	374
NCBI Accession #	NP_001648.1
NCBI GenBank Nucleotide #	NP_001648.1
UniProt Accession #	P15514

Molecular Weight	Predicted Molecular Mass: 38.6kDa Accurate Molecular Mass: 44kDa
NCBI Official Full Name	amphiregulin preproprotein
NCBI Official Synonym Full Names	amphiregulin
NCBI Official Symbol	AREG
NCBI Official Synonym Symbols	AR; SDGF; AREGB; CRDGF
NCBI Protein Information	amphiregulin
UniProt Protein Name	Amphiregulin
UniProt Gene Name	AREG
UniProt Synonym Gene Names	SDGF; AR; CRDGF
UniProt Entry Name	AREG_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/areg-active-protein/amphiregulin/150047>