Datasheet for ABIN1889290

Amphiregulin ELISA Kit

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Overview

Quantity:	96 tests
Target:	Amphiregulin (AREG)
Binding Specificity:	AA 101-198
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Amphiregulin(AR)
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Saliva, Milk
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S101-K198
Specificity:	Expression system for standard: E.coli Immunogen sequence: S101-K198
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

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Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	Amphiregulin (AREG)
Alternative Name:	AREG (AREG Products)
Background:	Protein Function: Ligand of the EGF receptor/EGFR. Autocrine growth factor as well as a mitogen for a broad range of target cells including astrocytes, Schwann cells and fibroblasts. Background: Amphiregulin, also known as AREG, is a protein that in humans is encoded by the AREG gene. The protein encoded by this gene is a member of the epidermal growth factor family. This gene is mapped to 4q13.1. It is an autocrine growth factor as well as a mitogen forastrocytes, Schwann cells, fibroblasts. Amphiregulin is related to toepidermal growth factor(EGF) and transforming growth factor alpha(TGF-alpha). This protein interacts with the Epidermal growth factor receptor to promote the growth of normal epithelial cells. It has been found that transgene integration and subsequent expression of Amphiregulin in basal keratinocytes correlated with a psoriasis-like skin phenotype, and its expression was increased in parallel with typical Th2 cytokines. Amphiregulin is also an important paracrine mediator of estrogen function specifically required for puberty-induced ductal elongation but not for any earlier or later developmental stages, and it can enhance resistance to nematodes. Synonyms: Amphiregulin,AR,Colorectum cell-derived growth factor,CRDGF,AREG,SDGF,AREGB, Full Gene Name: Amphiregulin Cellular Localisation: Membrane, Single-pass membrane protein.
Gene ID:	374
UniProt:	P15514
Pathways:	RTK Signaling, EGFR Signaling Pathway

Application Details

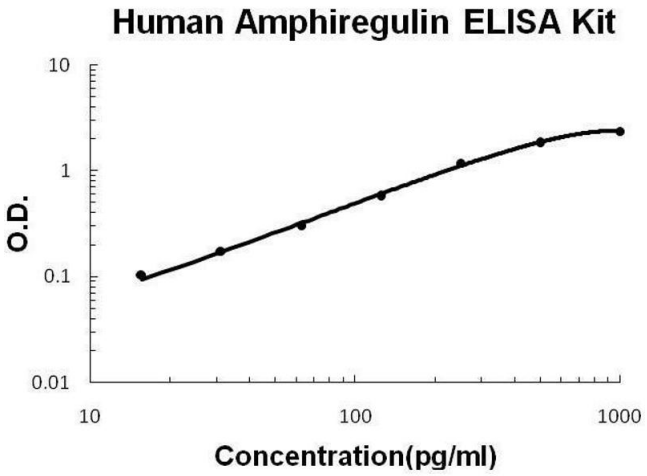
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Sequence similarities: Belongs to the amphiregulin family.
Plate:	Pre-coated
Protocol:	human Amphiregulin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Amphiregulin has been precoated onto 96-well plates. Standards(E.coli, S101-K198) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Amphiregulin is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human Amphiregulin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human Amphiregulin standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin, EDTA), saliva or human milk to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Amphiregulin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 115, Standard deviation: 6.67, CV(%): 5.8 • Sample 2: n=16, Mean(pg/ml): 351, Standard deviation: 15.1, CV(%): 4.3 • Sample 3: n=16, Mean(pg/ml): 633, Standard deviation: 29.75, CV(%): 4.7, • Sample 1: n=24, Mean(pg/ml): 104, Standard deviation: 8.94, CV(%): 8.6 • Sample 2: n=24, Mean(pg/ml): 339, Standard deviation: 24.75, CV(%): 7.3 • Sample 3: n=24, Mean(pg/ml): 620, Standard deviation: 32.24, CV(%): 5.2
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human Amphiregulin(AR) PicoKine ELISA Kit standard curve