

Datasheet for ABIN1889435
Angiopoietin 1 ELISA Kit[Go to Product page](#)**1** Image**1** Publication

Overview

Quantity:	96 tests
Target:	Angiopoietin 1 (ANGPT1)
Binding Specificity:	AA 16-498
Reactivity:	Rat
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat Angiopoietin-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: H16-F498
Specificity:	Expression system for standard: NSO Immunogen sequence: H16-F498
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

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:	Angiopietin 1 (ANGPT1)
Alternative Name:	ANGPT1 (ANGPT1 Products)
Background:	<p>Protein Function: Binds and activates TIE2 receptor by inducing its tyrosine phosphorylation. Implicated in endothelial developmental processes later and distinct from that of VEGF. Appears to play a crucial role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme. Mediates blood vessel maturation/stability. It may play an important role in the heart early development.</p> <p>Background: Angiopietin 1, also called ANG1 is a type of angiopoietin and is encoded by the gene ANGPT1. Angiopietins are proteins with important roles in vascular development and angiogenesis. All angiopoietins bind with similar affinity to an endothelial cell-specific tyrosine-protein kinase receptor. This gene was mapped to 8q23.1. The protein encoded by this gene is a secreted glycoprotein that activates the receptor by inducing its tyrosine phosphorylation. It plays a critical role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme and inhibits endothelial permeability. The protein also contributes to blood vessel maturation and stability, and may be involved in early development of the heart.</p> <p>Synonyms: Angiopietin-1,ANG-1,Angpt1,</p> <p>Full Gene Name: Angiopietin-1</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	89807
UniProt:	O35460
Pathways:	RTK Signaling , Glycosaminoglycan Metabolic Process

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.
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Application Details

Plate:	Pre-coated
Protocol:	rat Angiopoietin-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Angiopoietin-1 has been precoated onto 96-well plates. Standards(NSO, H16-F498) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Angiopoietin-1 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 rat Angiopoietin-1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 313pg/mL, 156pg/mL rat Angiopoietin-1 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 rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each rat Angiopoietin-1 standard solution and each sample is measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 1.31, Standard deviation: 0.046, CV(%): 3.5• Sample 2: n=16, Mean(ng/ml): 3.64, Standard deviation: 0.138, CV(%): 3.8• Sample 3: n=16, Mean(ng/ml): 6.95, Standard deviation: 0.292, CV(%): 4.2,• Sample 1: n=24, Mean(ng/ml): 1.42, Standard deviation: 0.058, CV(%): 4.1• Sample 2: n=24, Mean(ng/ml): 3.75, Standard deviation: 0.173, CV(%): 4.6• Sample 3: n=24, Mean(ng/ml): 7.03, Standard deviation: 0.401, CV(%): 5.7
Restrictions:	For Research Use only

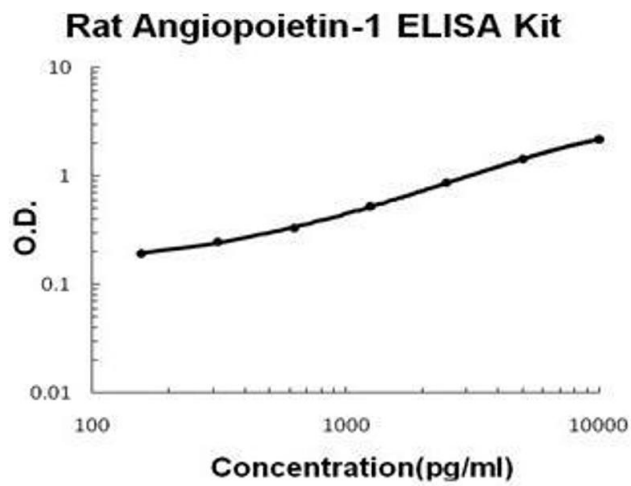
Handling

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

Publications

Product cited in:	Rong, Sang, Qian, Meng, Zhao, Li: "Biocompatibility of porcine small intestinal submucosa and
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rat endothelial progenitor cells in vitro." in: **International journal of clinical and experimental pathology**, Vol. 8, Issue 2, pp. 1282-91, (2016) ([PubMed](#)).



ELISA

Image 1. Rat Angiopoietin-1 PicoKine ELISA Kit standard curve