

Datasheet for ABIN1672763
Angiopoietin 2 ELISA Kit[Go to Product page](#)**1** Image**1** Publication

Overview

Quantity:	96 tests
Target:	Angiopoietin 2 (ANGPT2)
Binding Specificity:	AA 19-496
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Angiopoietin-2
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: NSO Immunogen sequence: Y19-F496
Specificity:	Expression system for standard: NSO Immunogen sequence: Y19-F496
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:	Angiopoietin 2 (ANGPT2)
Alternative Name:	ANGPT2 (ANGPT2 Products)
Background:	<p>Protein Function: Binds to TEK/TIE2, competing for the ANGPT1 binding site, and modulating ANGPT1 signaling. Can induce tyrosine phosphorylation of TEK/TIE2 in the absence of ANGPT1. In the absence of angiogenic inducers, such as VEGF, ANGPT2-mediated loosening of cell-matrix contacts may induce endothelial cell apoptosis with consequent vascular regression. In concert with VEGF, it may facilitate endothelial cell migration and proliferation, thus serving as a permissive angiogenic signal. .</p> <p>Background: Angiopoietin-2 is a protein that in humans is encoded by the ANGPT2 gene. Angiopoietins are members of the vascular endothelial growth factor family and the only known growth factors largely specific for vascular endothelium. ANGPT2 is a naturally occurring antagonist of angiopoietin-1 that competes for binding to the TIE2 receptor and blocks ANGPT1-induced TIE2 autophosphorylation during vasculogenesis. Its expression occurs at sites of vascular remodelling: dorsal aorta and major aortic branches, ovary, placenta and uterus.</p> <p>Synonyms: Angiopoietin-2,ANG-2,ANGPT2,</p> <p>Full Gene Name: Angiopoietin-2</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	285
UniProt:	O15123
Pathways:	RTK Signaling

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

Comment:	Sequence similarities: Contains 1 fibrinogen C-terminal domain.
Plate:	Pre-coated
Protocol:	human Angiopoietin-2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Angiopoietin-2 has been precoated onto 96-well plates. Standards(NSO, Y19-F496) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Angiopoietin-2 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 Angiopoietin-2 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human Angiopoietin-2 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 Angiopoietin-2 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 1.08, Standard deviation: 0.049, CV(%): 4.5• Sample 2: n=16, Mean(ng/ml): 3.49, Standard deviation: 0.181, CV(%): 5.2• Sample 3: n=16, Mean(ng/ml): 7.01, Standard deviation: 0.407, CV(%): 5.8,• Sample 1: n=24, Mean(ng/ml): 1.05, Standard deviation: 0.071, CV(%): 6.8• Sample 2: n=24, Mean(ng/ml): 3.32, Standard deviation: 0.236, CV(%): 7.1• Sample 3: n=24, Mean(ng/ml): 6.67, Standard deviation: 0.5, CV(%): 7.5
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: Liu, Zhu, Zhou, Wei, Long, Chen, Ling, Ge, Zhuo: "Endoplasmic reticulum stress promotes amyloid-beta peptides production in RGC-5 cells." in: **Cell stress & chaperones**, Vol. 19, Issue 6, pp. 827-35, (2014) ([PubMed](#)).

 Peng, Dai, Ji, Dai: "The separate roles of endothelin receptors participate in remodeling of matrix metalloproteinase and connexin 43 of cardiac fibroblasts in maladaptive response to isoproterenol." in: **European journal of pharmacology**, Vol. 634, Issue 1-3, pp. 101-6, (2010) ([PubMed](#)).

Images

