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ACE2 ELISA Kit





Publication



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Overview

Quantity:	96 tests
Target:	ACE2
Binding Specificity:	AA 18-740
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse ACE2
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO
	Immunogen sequence: Q18-T740
Specificity:	Expression system for standard: CHO
	Immunogen sequence: Q18-T740
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:	ACE2
Alternative Name:	ACE2 (ACE2 Products)
Background:	Protein Function: Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide
	of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. Also able to hydrolyze
	apelin- 13 and dynorphin-13 with high efficiency. May be an important regulator of heart
	function. May have a protective role in acute lung injury
	Background: Angiotensinl-converting enzyme 2(ACE 2) is a protein belongs to the angiotensin-
	converting enzyme family of dipeptidyl carboxydipeptidases and has considerable homology to
	human angiotensin 1 converting enzyme. By sequence similarity to a sequence in GenBank, this
	gene is mapped to Xp22.2. This secreted protein catalyzes the cleavage of angiotensin I into
	angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7. The organ- and cell-
	specific expression of this gene suggests that it may play a role in the regulation of
	cardiovascular and renal function, as well as fertility. In addition, the encoded protein is a
	functional receptor for the spike glycoprotein of the human coronaviruses SARS and HCoV-NL63.
	Synonyms: Angiotensin-converting enzyme 2,3.4.17.23,ACE-related
	carboxypeptidase,Processed angiotensin-converting enzyme 2,Ace2,
	Full Gene Name: Angiotensin-converting enzyme 2
	Cellular Localisation: Processed angiotensin-converting enzyme 2: Secreted.
Gene ID:	70008
UniProt:	Q8R0I0
Pathways:	ACE Inhibitor Pathway, Peptide Hormone Metabolism, Regulation of Systemic Arterial Blood
	Pressure by Hormones, Feeding Behaviour
Application Details	
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

Application Details

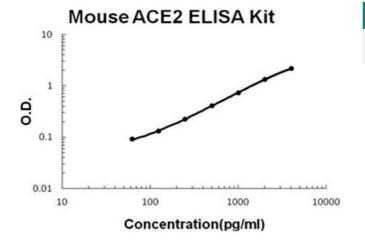
	assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Expressed in heart, kidney and forebrain (at protein level). Ubiquitously
	expressed, with highest levels in ileum, kidney and lung. In lung, expressed on vascular
	endothelial and airway epithelial cells
Plate:	Pre-coated
Protocol:	mouse ACE2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assa
	technology. A monoclonal antibody from rat specific for ACE2 has been precoated onto 96-well
	plates. Standards(CHO, Q18-T740) and test samples are added to the wells, a biotinylated
	detection polyclonal antibody from goat specific for ACE2 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 mouse ACE2 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL,
rioddy i rodddai'e.	125pg/mL, 62.5pg/mL mouse ACE2 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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to
	each empty well. See "Sample Dilution Guideline" above for details. We recommend that each
	mouse ACE2 standard solution and each sample is measured in duplicate.
Assay Precision:	 Sample 1: n=16, Mean(pg/ml): 417, Standard deviation: 20.85, CV(%): 5
	• Sample 2: n=16, Mean(pg/ml): 1235, Standard deviation: 65.46, CV(%): 5.3
	• Sample 3: n=16, Mean(pg/ml): 2279, Standard deviation: 127.62, CV(%): 5.6,
	 Sample 1: n=24, Mean(pg/ml): 503, Standard deviation: 37.73, CV(%): 7.5 Sample 2: n=24, Mean(pg/ml): 1327, Standard deviation: 102.18, CV(%): 7.7
	Sample 3: n=24, Mean(pg/ml): 2305, Standard deviation: 189.01, CV(%): 8.2
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

Publications

Product cited in:

Chiang, Liang, Liu, Pan, Chen, Yang, Lee, Tsai, Lee, Chen: "Aliskiren Improves Ischemia- and Oxygen Glucose Deprivation-Induced Cardiac Injury through Activation of Autophagy and AMP-Activated Protein Kinase." in: **Frontiers in pharmacology**, Vol. 8, pp. 819, (2017) (PubMed).

Images



ELISA

Image 1. Mouse ACE2 PicoKine ELISA Kit standard curve