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Datasheet for ABIN1889403

Renin ELISA Kit

1 Image

1 Publication

Overview

Quantity:	96 tests
Target:	Renin (REN)
Binding Specificity:	AA 72-402
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 Renin-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: S72-R402
Specificity:	Expression system for standard: NSO Immunogen sequence: S72-R402
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:	Renin (REN)
Alternative Name:	Renin-1 (REN Products)
Background:	<p>Protein Function: Renin is a highly specific endopeptidase, whose only known function is to generate angiotensin I from angiotensinogen in the plasma, initiating a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney.</p> <p>Background: Renin-1 is also known as Ren, Angiotensinogenase or Kidney rennin. It is a member of peptidase A1 family. Renin is a highly specific endopeptidase, whose only known function is to generate angiotensin I from angiotensinogen in the plasma, initiating a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney. It associated to membranes via binding to ATP6AP2.</p> <p>Synonyms: Renin-1,3.4.23.15,Angiotensinogenase,Kidney renin,Ren1,Ren, Ren-1,</p> <p>Full Gene Name: Renin-1</p> <p>Cellular Localisation: Secreted . Membrane . Associated to membranes via binding to ATP6AP2..</p>
Gene ID:	19701
UniProt:	P06281
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 assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Kidney.
Plate:	Pre-coated
Protocol:	mouse Renin-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent

Application Details

assay technology. A monoclonal antibody from rat specific for Renin-1 has been precoated onto 96-well plates. Standards(NSO, S72-R402) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Renin-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 mouse Renin-1 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, 125pg/mL, 62.5pg/mL mouse Renin-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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse Renin-1 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 890, Standard deviation: 49.84, CV(%): 5.6
- Sample 2: n=16, Mean(pg/ml): 1137, Standard deviation: 48.9, CV(%): 4.3
- Sample 3: n=16, Mean(pg/ml): 2932, Standard deviation: 161.26, CV(%): 5.5,
- Sample 1: n=24, Mean(pg/ml): 927, Standard deviation: 67.7, CV(%): 7.3
- Sample 2: n=24, Mean(pg/ml): 2274, Standard deviation: 129.6, CV(%): 5.7
- Sample 3: n=24, Mean(pg/ml): 3045, Standard deviation: 194.88, CV(%): 6.4

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: Zhang, Shi, Zou, Chen, Tang, Ye, Liu: "High glucose stimulates cell proliferation and Collagen IV production in rat mesangial cells through inhibiting AMPK-KATP signaling." in: **International urology and nephrology**, Vol. 49, Issue 11, pp. 2079-2086, (2018) ([PubMed](#)).

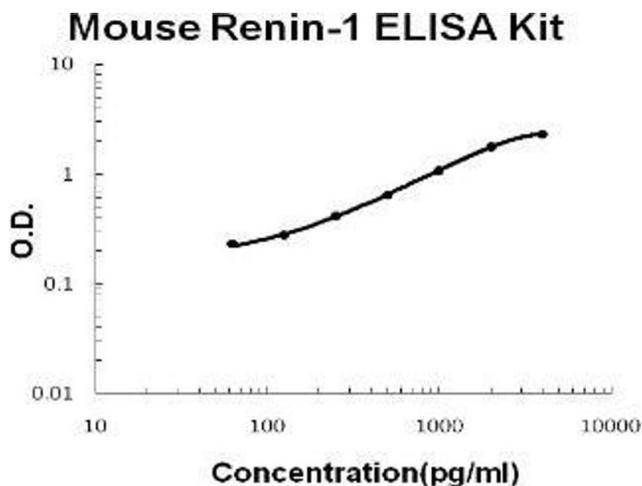
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Xu, Ling, Zhu, Fan, Zhang: "The effect of 2,3,4',5-tetrahydroxystilbene-2-O- β -D glucoside on neointima formation in a rat artery balloon injury model and its possible mechanisms." in: **European journal of pharmacology**, Vol. 698, Issue 1-3, pp. 370-8, (2013) ([PubMed](#)).

Kim, Lee, Choi, Yoo, Yang: "Implication of MMP-9 and urokinase plasminogen activator (uPA) in the activation of pro-matrix metalloproteinase (MMP)-13." in: **Rheumatology international**, Vol. 32, Issue 10, pp. 3069-75, (2012) ([PubMed](#)).

Images



ELISA
Image 1. Mouse Renin-1 PicoKine ELISA Kit standard curve