

Datasheet for ABIN1889425

**Corin ELISA Kit**[Go to Product page](#)**1** Image

## Overview

Quantity:	96 tests
Target:	Corin (CORIN)
Binding Specificity:	AA 67-1042
Reactivity:	Human
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 Human Corin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: S67-N1042
Specificity:	Expression system for standard: NSO Immunogen sequence: S67-N1042
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: Corin (CORIN)

Alternative Name: CORIN ([CORIN Products](#))

Background: Protein Function: Serine-type endopeptidase involved in atrial natriuretic peptide hormone (NPPA) processing. Converts through proteolytic cleavage the non-functional propeptide NPPA into the active hormone, thereby regulating blood pressure in heart and promoting natriuresis, diuresis and vasodilation. Proteolytic cleavage of pro-NPPA also plays a role in female pregnancy by promoting trophoblast invasion and spiral artery remodeling in uterus. Also acts as a regulator of sodium reabsorption in kidney. May also process pro-NPPB the B-type natriuretic peptide.

Background: Atrial natriuretic peptide-converting enzyme, also called CRN or ATC2, is a protein that in humans is encoded by the CORIN gene. It is mapped to 4p12. This gene encodes a member of the type II transmembrane serine protease class of the trypsin superfamily. Members of this family are composed of multiple structurally distinct domains. It has been found that Corin is the pro-ANP-converting enzyme and that Corin-mediated pro-ANP activation may play a role in regulating blood pressure. What's more, Corin and ANP are essential for physiologic changes at the maternal-fetal interface. This protein may also function as a pro-brain-type natriuretic peptide convertase. Corin gene mutations which cause Corin to impair activity might be an underlying mechanism in hypertension.

Synonyms: Atrial natriuretic peptide-converting enzyme,3.4.21.-,Corin,Heart-specific serine proteinase ATC2,Pro-ANP-converting enzyme,Transmembrane protease serine 10,Atrial natriuretic peptide-converting enzyme, N-terminal propeptide,Atrial natriuretic peptide-converting enzyme, activated protease fragment,Atrial natriuretic peptide-converting enzyme, 180 kDa soluble fragment,Atrial natriuretic peptide-converting enzyme, 160 kDa soluble fragment,Atrial natriuretic peptide-converting enzyme, 100 kDa soluble fragment,CORIN,CRN, Tmprss10,

Full Gene Name: Atrial natriuretic peptide-converting enzyme

Cellular Localisation: Cell membrane, Single- pass type II membrane protein . May easily

## Target Details

	detached from the endothelial cell membrane.
Gene ID:	10699
UniProt:	<a href="#">Q9Y5Q5</a>
Pathways:	<a href="#">Regulation of Systemic Arterial Blood Pressure by Hormones</a>

## 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:	Sequence similarities: Belongs to the peptidase S1 family.  Tissue Specificity: Highly expressed in heart. Expressed in heart myocytes. Also expressed in pregnant uterus. Detected in blood, in plasma as well as in serum (at protein level). .
Plate:	Pre-coated
Protocol:	human Corin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Corin has been precoated onto 96-well plates. Standards(NSO, S67-N1042) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Corin 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 Corin 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 human Corin 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) or tissue homogenates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Corin standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 1032, Standard deviation: 36.12, CV(%): 3.5</li><li>• Sample 2: n=16, Mean(pg/ml): 2355, Standard deviation: 89.49, CV(%): 3.8</li><li>• Sample 3: n=16, Mean(pg/ml): 3568, Standard deviation: 146, CV(%): 4.1,</li><li>• Sample 1: n=24, Mean(pg/ml): 897, Standard deviation: 42.2, CV(%): 4.7</li><li>• Sample 2: n=24, Mean(pg/ml): 2018, Standard deviation: 131.17, CV(%): 6.5</li></ul>

Application Details

- Sample 3: n=24, Mean(pg/ml): 3465, Standard deviation: 249.48, CV(%): 7.2

Restrictions: For Research Use only

Handling

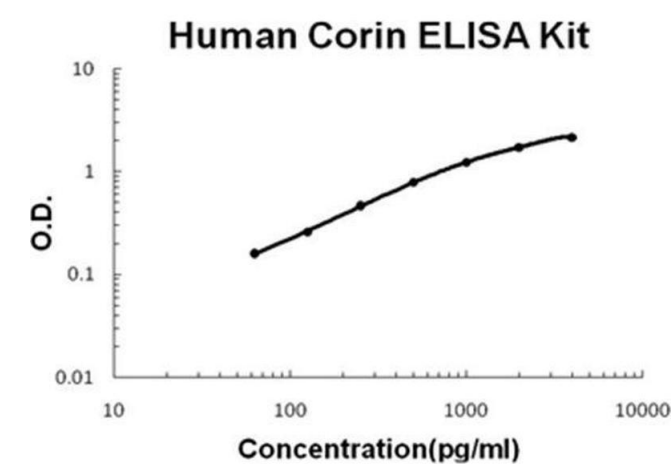
Handling Advice: Avoid multiple freeze-thaw cycles.

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

Images



**ELISA**

**Image 1.** Human Corin PicoKine ELISA Kit standard curve