Datasheet for ABIN1889346

N-Cadherin ELISA Kit

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Overview

Quantity:	96 tests
Target:	N-Cadherin (CDH2)
Binding Specificity:	AA 160-724
Reactivity:	Rat
Method Type:	Sandwich ELISA
Detection Range:	0.78-50 ng/mL
Minimum Detection Limit:	0.78 ng/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat Cadherin-2/N-Cadherin
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: D160-A724
Specificity:	Expression system for standard: NSO Immunogen sequence: D160-A724
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<20pg/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

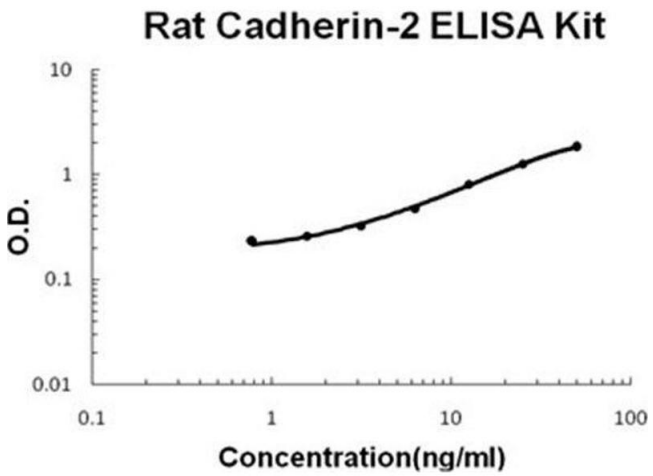
Target:	N-Cadherin (CDH2)
Alternative Name:	CDH2 (CDH2 Products)
Background:	Protein Function: Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells, cadherins may thus contribute to the sorting of heterogeneous cell types. Acts as a regulator of neural stem cells quiescence by mediating anchorage of neural stem cells to ependymocytes in the adult subependymal zone: upon cleavage by MMP24, CDH2-mediated anchorage is affected, leading to modulate neural stem cell quiescence. CDH2 may be involved in neuronal recognition mechanism. In hippocampal neurons, may regulate dendritic spine density (By similarity). . Background: Cadherin-2(CDH2), also known as neural cadherin(NCAD), is a protein that in humans is encoded by the CDH2 gene. It is a classical cadherin from the cadherin superfamily. This gene is mapped to 18q12.1. Cadherin-2 is expressed in the brain, skeletal and cardiac muscle. Cadherin-2 is commonly found in cancer cells and provides a mechanism for transendothelial migration. It is a calcium dependent cell-cell adhesion glycoprotein comprising five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. The protein functions during gastrulation and is required for establishment of left-right asymmetry. At certain central nervous system synapses, presynaptic to postsynaptic adhesion is mediated at least in part by this gene product. Synonyms: Cadherin-2,Neural cadherin,N-cadherin,CD325,Cdh2, Full Gene Name: Cadherin-2 Cellular Localisation: Cell membrane, Single-pass type I membrane protein.
Gene ID:	83501
UniProt:	Q9Z1Y3
Pathways:	Regulation of Muscle Cell Differentiation, Cell-Cell Junction Organization, Synaptic Membrane

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: In testis, expressed in Sertoli and germ cells. .
Plate:	Pre-coated
Protocol:	rat Cadherin-2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Cadherin-2 has been precoated onto 96-well plates. Standards(NSO, D160-A724) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Cadherin-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 rat Cadherin-2 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 50 ng/mL, 25 ng/mL, 12.5 ng/mL, 6.25 ng/mL, 3.12 ng/mL, 1.56 ng/mL, 0.78 ng/mL rat Cadherin-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 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 Cadherin-2 standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 9.8, Standard deviation: 0.451, CV(%): 4.6 • Sample 2: n=16, Mean(ng/ml): 23.7, Standard deviation: 1.256, CV(%): 5.3 • Sample 3: n=16, Mean(ng/ml): 39.5, Standard deviation: 1.738, CV(%): 4.4, • Sample 1: n=24, Mean(ng/ml): 13.5, Standard deviation: 0.864, CV(%): 6.4 • Sample 2: n=24, Mean(ng/ml): 28.7, Standard deviation: 2.066, CV(%): 7.2 • Sample 3: n=24, Mean(ng/ml): 41.6, Standard deviation: 2.329, CV(%): 5.6
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



ELISA

Image 1. Rat Cadherin-2/N-Cadherin PicoKine ELISA Kit standard curve