Datasheet for ABIN2859259

NrCAM ELISA Kit

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Overview

Quantity:	96 tests
Target:	NrCAM (NRCAM)
Binding Specificity:	AA 30-600
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 NRCAM
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: L30-N600
Specificity:	NSO, L30-N600
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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:	NrCAM (NRCAM)
Alternative Name:	NRCAM (NRCAM Products)
Background:	Protein Function: Cell adhesion protein that is required for normal responses to cell-cell contacts in brain and in the peripheral nervous system. Plays a role in neurite outgrowth in response to contactin binding. Plays a role in mediating cell-cell contacts between Schwann cells and axons. Plays a role in the formation and maintenance of the nodes of Ranvier on myelinated axons. Nodes of Ranvier contain clustered sodium channels that are crucial for the saltatory propagation of action potentials along myelinated axons. During development, nodes of Ranvier are formed by the fusion of two heminodes. Required for normal clustering of sodium channels at heminodes, not required for the formation of mature nodes with normal sodium channel clusters. Required, together with GLDN, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier. . Background: Neuronal cell adhesion molecule is a protein that in humans is encoded by the NRCAM gene. Cell adhesion molecules (CAMs) are members of the immunoglobulin superfamily. This gene encodes a neuronal cell adhesion molecule with multiple immunoglobulin-like C2-type domains and fibronectin type-III domains. This ankyrin-binding protein is involved in neuron-neuron adhesion and promotes directional signaling during axonal cone growth. Also, this gene is expressed in non-neural tissues and may play a general role in cell-cell communication via signaling from its intracellular domain to the actin cytoskeleton during directional cell migration. Allelic variants of this gene have been associated with autism and addiction vulnerability. Alternative splicing results in multiple transcript variants encoding different isoforms. Synonyms: Neuronal cell adhesion molecule,Nr-CAM,Neuronal surface protein Bravo ,hBravo ,NgCAM-related cell adhesion molecule,Ng-CAM-related,NRCAM,KIAA0343, Full Gene Name: Neuronal cell adhesion molecule Cellular Localisation: Cell membrane, Single-pass type I membrane protein . Cell projection, axon . Secreted . Detected at nodes of Ranvier..
Gene ID:	4897

Target Details

UniProt:	Q92823
Pathways:	Regulation of Cell Size

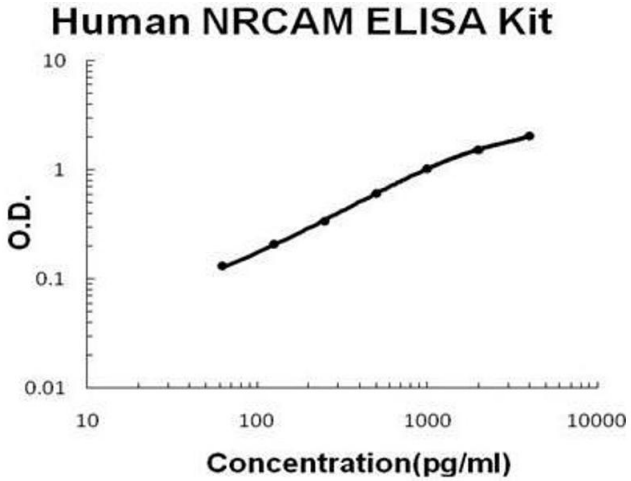
Application Details

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: Detected in all the examined tissues. In the brain it was detected in the amygdala, caudate nucleus, corpus callosum, hippocampus, hypothalamus, substantia nigra, subthalamic nucleus and thalamus.
Plate:	Pre-coated
Protocol:	human NRCAM ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for NRCAM has been precoated onto 96-well plates. Standards (NSO, L30-N600) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for NRCAM 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 NRCAM 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 NRCAM 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 or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human NRCAM standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 675, Standard deviation: 35.10, CV(%): 5.2 • Sample 2: n=16, Mean(pg/ml): 1308, Standard deviation: 79.78, CV(%): 6.1 • Sample 3: n=16, Mean(pg/ml): 2147, Standard deviation: 124.52, CV(%): 5.8, • Sample 1: n=24, Mean(pg/ml): 694, Standard deviation: 40.25, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 1382, Standard deviation: 89.83, CV(%): 6.5 • Sample 3: n=24, Mean(pg/ml): 2503, Standard deviation: 155.18, CV(%): 6.2
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 NRCAM PicoKine ELISA Kit standard curve