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NRCAM Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1795a

Specification

NRCAM Antibody - Product Information

Application	**WB, ICC, E**
Primary Accession	Q92823
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**144kDa KDa**

Description
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. This gene is also 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.

Immunogen
Purified recombinant fragment of human NRCAM (AA: 1192-1255) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

NRCAM Antibody - Additional Information

Gene ID 4897

Other Names
Neuronal cell adhesion molecule, Nr-CAM, Neuronal surface protein Bravo, hBravo, NgCAM-related cell adhesion molecule, Ng-CAM-related, NRCAM, KIAA0343

Dilution
WB~~1/500 - 1/2000
ICC~~N/A
E~~1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
NRCAM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NRCAM Antibody - Protein Information

Name NRCAM

Synonyms KIAA0343

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.

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q810U4}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q810U4} Cell projection, axon {ECO:0000250|UniProtKB:Q810U4}. Secreted {ECO:0000250|UniProtKB:Q810U4}. Note=Detected at nodes of Ranvier {ECO:0000250|UniProtKB:Q810U4}

Tissue Location
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.

NRCAM Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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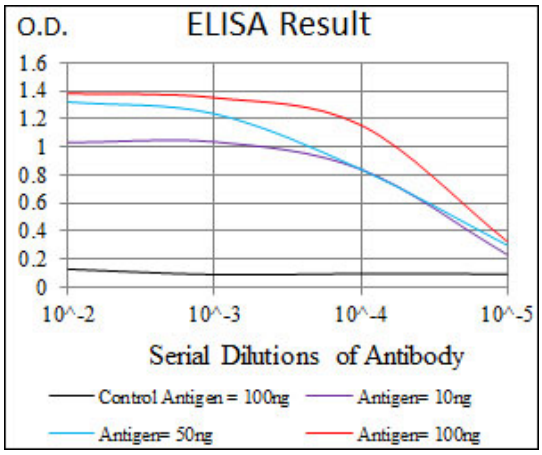

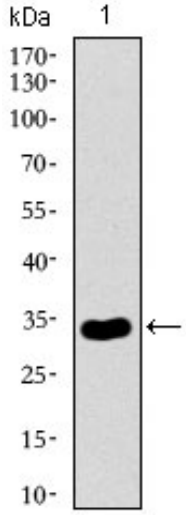

Figure 1: Western blot analysis using NRCAM mAb against human NRCAM recombinant protein. (Expected MW is 32.7 kDa)

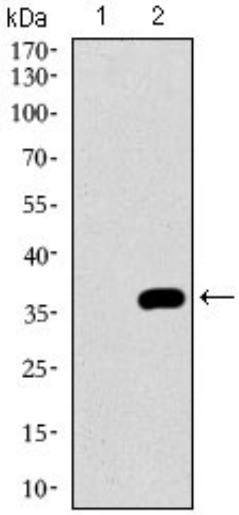

Figure 2: Western blot analysis using NRCAM mAb against HEK293 (1) and NRCAM (AA: 1192-1255)-hIgGFc transfected HEK293 (2) cell lysate.

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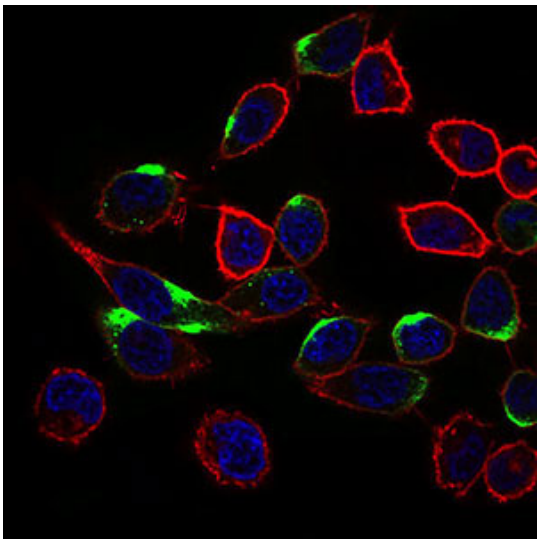

Figure 3: Immunofluorescence analysis of HepG2 cells using NRCAM mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

NRCAM Antibody - Background

Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha-chain. ;

NRCAM Antibody - References

1. Psychiatry Clin Neurosci. 2009 Feb;63(1):123-4. 2. Int J Neuropsychopharmacol. 2009 Feb;12(1):1-10.