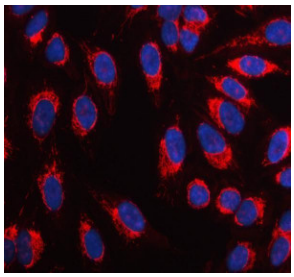
NCAM1 Antibody / Neural Cell Adhesion Molecule 1 Antibody (RQ5592)

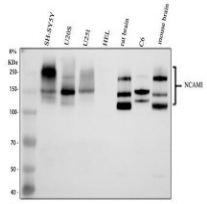
Catalog No.	Formulation	Size
RQ5592	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

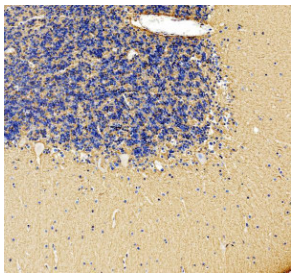
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P13591
Applications	Western blot: 0.25-0.5ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This NCAM1 Antibody / Neural Cell Adhesion Molecule 1 Antibody is available for research use only.



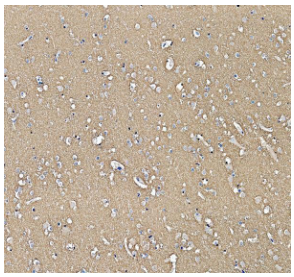
NCAM1 Antibody U2OS Cell IF. Immunofluorescent staining of human U2OS cells demonstrates NCAM1 expression following enzyme antigen retrieval and blocking with 10% goat serum. Cells were incubated with NCAM1 Antibody at 5 ug/ml overnight at 4Â°C, followed by Cy3-conjugated secondary antibody. NCAM1 staining is shown in red with DAPI nuclear counterstaining in blue. This Neural Cell Adhesion Molecule 1 Antibody supports studies of neural cell adhesion, cell-cell interactions, and NCAM1 expression and localization.



NCAM1 Antibody Human, Rat and Mouse WB. Western blot analysis demonstrates NCAM1 expression in human SH-SY5Y, U2OS, U251 and HEL cells, rat brain and C6 cells, and mouse brain. NCAM1 Antibody was used at 0.25 ug/ml. Multiple immunoreactive bands are detected at approximately 120â€“250 kDa, consistent with the known molecular heterogeneity of NCAM1 resulting from alternative splicing and extensive post-translational modification. This Neural Cell Adhesion Molecule 1 Antibody supports studies of neural cell adhesion, neuronal development, cell-cell interactions, and nervous system biology.



NCAM1 Antibody Human Cerebellum IHC. Immunohistochemical staining of FFPE human cerebellum tissue demonstrates NCAM1 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Sections were blocked with 10% goat serum and incubated with NCAM1 Antibody at 2 ug/ml overnight at 4Â°C, followed by HRP/DAB detection. Brown staining is observed across the cerebellar tissue, with hematoxylin counterstaining in blue. This Neural Cell Adhesion Molecule 1 Antibody supports studies of neural cell adhesion, neuronal development, and cerebellar biology.



NCAM1 Antibody Human Cerebral Cortex IHC. Immunohistochemical staining of FFPE human cerebral cortex tissue demonstrates NCAM1 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Sections were blocked with 10% goat serum and incubated with NCAM1 Antibody at 2 ug/ml overnight at 4Â°C, followed by HRP/DAB detection. Brown staining is observed throughout the neural tissue, with hematoxylin counterstaining in blue. This Neural Cell Adhesion Molecule 1 Antibody supports studies of neural cell adhesion, neuronal development, and nervous system biology.

Description

NCAM1 Antibody / Neural Cell Adhesion Molecule 1 Antibody recognizes NCAM1, a cell-surface glycoprotein belonging to the immunoglobulin superfamily. Also widely known as CD56, NCAM1 mediates homophilic and heterophilic cell interactions and participates in cell adhesion, migration, differentiation, and signaling. The protein is particularly important in the nervous system, where it contributes to neuronal development, neurite extension, axonal guidance, synaptic organization, and neural plasticity. NCAM1 is expressed as several major isoforms generated through alternative splicing, producing membrane-associated and soluble forms with distinct structural and functional properties.

Neural Cell Adhesion Molecule 1 undergoes extensive post-translational modification that can substantially affect its molecular weight and biological activity. Of particular importance is polysialylation, in which long chains of polysialic acid are attached to NCAM1. This modification reduces NCAM-mediated adhesion and facilitates dynamic cellular interactions during neural development, migration, and tissue remodeling. Differences in alternative splicing, glycosylation, and polysialylation contribute to the multiple molecular forms of NCAM1 observed experimentally. An NCAM1 Antibody can therefore be useful for investigating NCAM1 expression and the molecular heterogeneity associated with this extensively modified adhesion protein.

Outside the nervous system, NCAM1/CD56 is prominently expressed by natural killer cells and subsets of T lymphocytes and is widely studied as an immune cell marker. CD56 expression is also associated with a range of tumors, particularly malignancies exhibiting neural, neuroendocrine, or hematologic differentiation. Changes in NCAM1 expression and signaling have been investigated in relation to tumor cell adhesion, migration, invasion, differentiation, and interactions with surrounding cells. A Neural Cell Adhesion Molecule 1 Antibody can consequently support research spanning neuroscience, immunology, developmental biology, and cancer biology.

NCAM1 function extends beyond physical cell adhesion through interactions with signaling proteins, extracellular matrix components, and other cell-surface receptors. These interactions allow NCAM1 to influence cytoskeletal organization,

cellular motility, survival, differentiation, and synaptic function. Its broad biological roles make NCAM1 an important target for studies of nervous system development, neural regeneration, immune cell phenotypes, and CD56-expressing cancers. NSJ Bioreagents offers antibodies for investigating cell adhesion molecules and related signaling pathways. An NCAM1 Antibody is a useful research reagent for studying Neural Cell Adhesion Molecule 1 expression, CD56 biology, neuronal development, cell-cell adhesion, neural signaling, and cancer biology.

Explore our CD Antibodies page to find additional antibodies targeting CD markers used in immunology, cell characterization, and cancer research.

Application Notes

Optimal dilution of the NCAM1 Antibody / Neural Cell Adhesion Molecule 1 Antibody should be determined by the researcher.

Immunogen

A human recombinant protein (amino acids K152-Q690) was used as the immunogen for the NCAM1 antibody.

Storage

After reconstitution, the NCAM1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

NCAM1 antibody, Neural Cell Adhesion Molecule 1 antibody, CD56 antibody, NCAM antibody, N-CAM antibody, CD56 antigen antibody

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