

CD56

MOUSE MONOCLONAL ANTIBODY

Entrez-Gene ID #4137
Uniprot Acc. # P13591

Background:

The neural cell adhesion molecule (NCAM/CD56) is a homophilic binding glycoprotein belonging to immunoglobulin (Ig) superfamily. It is commonly found on the surface of neurons, NK cells, glia, and neuroendocrine tissues, and it is involved in synaptic plasticity, neurodevelopment, and neurogenesis. NCAM mediates axon growth, fasciculation, and cell adhesion by homophilic and heterophilic interactions. Due to alternative splicing, at least 27 different isoforms of NCAM mRNAs has been identified, leading to variety of NCAM isoforms. Three major NCAM isoforms are: 140 and 180 kDa transmembrane forms (NCAM-140, NCAM-180), and 120 kDa glycosylphosphatidylinositol (GPI)-linked isoform (NCAM120).

Specificity and Comments:

This antibody is specific to two proteins of 140kd and 180kd, identified as two isoforms of neural cell adhesion molecules (NCAM/CD56). NCAM is expressed on most neuroectodermal derived cell lines, tissues, and neoplasm such as retinoblastoma, medulloblastoma, astrocytomas, and neuroblastoma.

Immunogen:

This antibody is generated from mouse immunized with a KLH conjugated synthetic peptide between 845-858 amino acids from the C-terminal region of human NCAM.

Procedure:

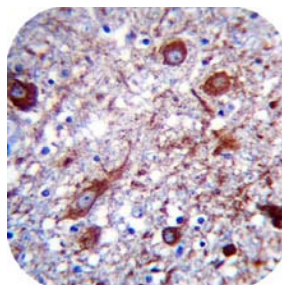
1. Preparing paraffin sections, cryostat sections or cell smears according to the relevant laboratory procedures.
2. If required, retrieve antigen in digestive enzyme, EDTA buffer (pH 8.0) or sodium citrate (pH 6.0).
3. Blocking endogenous peroxidase or biotin to block nonspecific background staining.
4. Apply super block solution and incubate for 5 minutes at room temperature to block nonspecific background staining. (Note: Do not exceed 10 minutes or there may be a reduction in desired stain.)
5. Add 1~2 drops primary antibody (ready-to-use) or 50~100µl diluted primary antibody on sections. We suggest an incubation period of 60 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
6. Visualization: For maximum staining intensity we recommend the "HRP Anti-Polyvalent Kit" (Abgent catalog# KT1002a, see instructions for details) combined with the "DAB Substrate Kit" (Abgent catalog# KT1003a, see instructions for details).

References:

- (1) BA Cunningham et al., Science 236(4803) 799-806, 1987
- (2) AA Reyes et al., Mol Cell Biol 11(3): 1654-1661, 1991.
- (3) HE Beggs et al., JCB 272(13):8310-8319, 1997.
- (4) Gerardy et al. Intl. J. Cancer. Supplement 8:38, 1994.

Catalog #:AD1044a-3/ AD1044a-6
Clone Name: 321CT11
Isotype: IgG1
Species Reactivity: Human
Cellular localization: Cytoplasm

Application Data:



IHC analysis of CD56 antibody in human brain tissue.

Specification:

ready-to-use: 3ml 6ml others
concentrated: 0.1ml 0.2ml others
(Immunohistology dilution 1:50 ~ 1:200)

Reagent Provided:

This antibody is affinity purified and diluted in 10 mM Phosphate buffered saline (PBS), pH 7.4 containing bovine serum albumin (1% w/v) and sodium azide (0.09% w/v).

Storage:

This product can be refrigerated at 2-8°C for up to 12 months. Do not use after expiration date stamped on vial.

Precautions:

1. This product contains sodium azide (NaN₃), a toxic substance. Therefore, Wearing appropriate personal protective equipment to avoid contact with eyes and skin. If inadvertently touch the eyes and skin, flush with large volumes of water.
2. Unused reagents should be disposed of according to all regulations.
3. This product is for in vitro research use only and not intended for use in diagnostic or therapeutic procedures.