

CD56, Neural Cell Adhesion Molecule, NCAM

Clone 123C3

Cat. no. MON 9006

Specificity

The antibody recognizes a transmembrane glycoprotein of 140 and 180 kD which has been identified as NCAM (Neural Cell Adhesion Module). It is involved in intercellular adhesion and play a role in outgrowth of neurites and the development of the nervous system. Several other isoforms have been identified which are expressed in a developmental and tissue specific pattern. Two major epitopes have been defined, NKI-nbl-1 (MON 9012) reacts with epitope 1 and 123C3 (MON 9006) reacts with epitope 2. At the international Workshop on SCLC antibodies 123C3 has been categorized as cluster 1 antibody (Stahel et al 1994). Most importantly, 123C3 can be used on routing formalin fixed paraffin section after retrieval. All cells in small cell carcinomas and carcinoids of the lung are strongly positive for 123C3. A minority of cases of other major types of lung carcinoma are sometimes positive as well: however this positivity is generally weak and focal. Adenoid cystic carcinomas of bronchial glands are strongly positive. Neuroblastoma's and Wilms tumors are usually also staining strongly positive. In non small lung cell carcinomas, 123C3 staining has been associated with more advanced stage and a decreased survival after surgery (Kibbelaar et al. 1991). Positive staining with other tumors, include medullary thyroid carcinomas and some ovarian tumors. NCAM (CD56) is a marker for natural killer: 123C3 can be used to distinguish NK cells from other haematopoietic cell populations. Although expression of CD56 is uncommon among lymphomas, this feature has defined a distinctive and important category of lymphoma: the putative natural killer (NK) cell lymphoma, which shows a predilection for the upper aerodigestive tract, skin, skeletal muscle, and other extranodal sites and pursues an aggressive clinical course. Furthermore, this antibody can be used to support diagnosis of lymphoma or to detect residual disease for cases of CD56 positive T/NK -cell lymphoma in which the neoplastic lymphoid cells are small and show minimal atypia, especially in small biopsies.

Immunoglobulin type

Murine IgG₁

Use

Study of small cell carcinoma. Detection of CD56 positive lymphomas.

Instructions for use

The antibody is useful on formalin fixed paraffin sections. These sections should be pretreated in microwave or pressure cooker. An optimal dilution should be determined at each individual laboratory. For use in staining of frozen sections see instructions I. For regular immunoperoxidase and immunofluorescence tests a 1:5 to 1:20 dilution in PBS is advised.

Presentation

1 ml tissue culture supernatant containing 0.02% sodium azide.

Sufficient for 50-200 tests. Cat.nr. MON 9006-1.

5 ml tissue culture supernatant containing 0.02% sodium azide.

Sufficient for 250-1000 tests. Cat.nr. MON 9006-5.

Literature

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- Stahel R.A., Gilks W.R. et al., 1994 Int. J. Cancer Suppl. 8, 6-26
- Tsang, W.Y.W., Chan, J.K.C., et al., 1996, Am. J. Surg. Pathol. 20, 202-210.

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