

**MONOCLONAL ANTIBODY CD 56**

Cat. No.	Form	Quantity	Presentation
1844	Purified	0.2 mg	Freeze-dried

**Clone** C218

**Isotype** IgG1  $\kappa$  (mouse)

**Immunogen** Human NK clone

**Hybridoma** Myeloma P3U1 x Balb/c spleen cells

**Specificity** The molecular weight of the recognized antigen is predominantly 140 kDa (1).

The CD56 antigen is a transmembrane member of the immunoglobulin superfamily of cell surface proteins. It is the product of one of the numerous alternative splicing events, generated from a single gene, encoding for the neural cell adhesion molecule (NCAM) isoforms (2).

Posttranslational modifications to the polypeptides include addition of O-linked oligosaccharides, complex N-linked oligosaccharides,  $\alpha$ -2,8-linked polysialic acid, sulfation, phosphorylation (3).

The CD56 antigen is found on a subpopulation of peripheral blood large granular lymphocytes and is expressed by almost all human NK cells. Its density is increased on the cell membrane after activation (4). CD56 antigen is also expressed by some T-cell lines and by a subpopulation of activated T cells.

**Applications** Flow cytometry and fluorescent microscopy.

Studies on NK-cell-mediated cytotoxicity.

Studies on posttranslational glycosylation heterogeneity of NCAM.

**Buffer** 1 mg/mL bovine serum albumin in phosphate buffered saline.

**Reconstitution and Storage** The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 ml of distilled water. No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date. Aliquoting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C.

**Recommended Procedures** Fluorescent microscopy or flow cytometry:  
2  $\mu$ g/5x10<sup>5</sup> cells/test

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FOR RESEARCH USE ONLY - NOT FOR USE IN DIAGNOSTIC PROCEDURES



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**References**

- 1) Lanier, L.L., Chang, C., Azuma, M., Ruitenberg, J.J., Hemperly, J.J., Phillips, J.H., "Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56)", 1991, J. Immunol., **146**, 4421-4426.
- 2) Nguyen, C., Mattei, M-G., Mattei, J-F., Santoni, M-J., Goridis, C., Jordan, B.R., 1986, J. Cell Biol., **102**, 711.
- 3) Regan, C.M., 1991, Int. J. Biochem., **23**, 513.
- 4) Robertson, M.J., Ritz, J., "Biology and clinical relevance of human natural killer cells", 1990, Blood, **76**, 12, 2421-2437.