Technical Data Sheet

Purified Mouse Anti-human CD56

Product Information

Material Number:	**559049**
Alternate Name:	N-CAM
Size:	0.2 mg
Concentration:	1.0 mg/ml
Clone:	MY31
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V NK19
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Reacts with the neural cell adhesion molecule (N-CAM), CD56 antigen, 175-180 kD, a glycoprotein on natural killer (NK) lymphocytes, a subset of T lymphocytes and interleukin-2 (IL-2)-activated thymocytes, as well as neural and degenerating or diseased muscle tissue. Anti-N-CAM monoclonal antibody (clone MY31) immunoprecipitates NCAM from neuroblastoma, KG-1a.5, N-CAM-trasfected mouse L cells, and human adenocarcinoma cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
Functional assay	Reported
Immunoaffinity Chromatography	Reported
Immunohistochemistry	Reported

Recommended Assay Procedure:

Functional Studies: Anti-N-CAM monoclonal antibody (clone MY31) has been shown to prevent rosette formation between NK lymphocytes and anti-N-CAM monoclonal antibody-coupled human red cells, but does not prevent NK lysis of tumor target cells. As development progresses, N-CAM is expressed on various differentiated tissues such as human neuroendocrine tissues, cells of neural crest lineage, and regenerating or disease skeletal muscle. It also mediates adhesion among neurons and between neurons and muscle.

Immunoaffinity Chromatography/Immunoprecipitation: N-CAM can be purified from human brain tissue by immunoaffinity chromatography using Anti-N-CAM monoclonal antibody (clone MY31) coupled to Sepharose and immunoprecipitated with Anti-N-CAM monoclonal antibody (clone MY31) for polyacrylamide gel electrophoretic analysis.

Immunohistology: Anti-N-CAM monoclonal antibody (clone MY31) can be used for staining frozen sections of neural and skeletal muscle tissues by immunofluorescence or immunoperoxidase methods.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal
555746	Purified Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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References

Doherty P, Ashton SV, Moore SE, Walsh FS. Morphoregulatory activities of NCAM and N-cadherin can be accounted for by G protein-dependent activation of L- and N-type neuronal Ca2+ channels. *Cell.* 1991; 67(1):21-33.(Biology)

Jin L, Hemperly JJ, Lloyd RV. Expression of neural cell adhesion molecule in normal and neoplastic human neuroendocrine tissues. *Am J Pathol.* 1991; 138(4):961-969.(Biology)

Lanier LL, Chang C, Azuma M, Ruitenberg JJ, Hemperly JJ, Phillips JH. Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56). *J Immunol.* 1991; 146(12):4421-4426.(Biology)

Lanier LL, Le AM, Civin CI, Loken MR, Phillips JH. The relationship of CD16 (Leu-11) and Leu-19 (NKH-1) antigen expression on human peripheral blood NK cells and cytotoxic T lymphocytes. *J Immunol.* 1986; 136(12):4480-4486.(Biology)

Lanier LL, Testi R, Bindl J, Phillips JH. Identity of Leu-19 (CD56) leukocyte differentiation antigen and neural cell adhesion molecule. *J Exp Med.* 1989; 169(6):2233-2238.(Biology)

Schubert W, Zimmermann K, Cramer M, Starzinski-Powitz A. Lymphocyte antigen Leu-19 as a molecular marker of regeneration in human skeletal muscle. *Proc Natl Acad Sci U S A.* 1989; 86(1):307-311.(Biology)