

Technical Data Sheet

Purified Rat Anti-Mouse CD56

Product Information

Material Number:	556325
Alternate Name:	N-CAM
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	12F8
Immunogen:	Mouse membrane fractions
Isotype:	Rat IgM
Reactivity:	QC Testing: Mouse Tested in Development: Human, Rat
Target MW:	Varies from 90 - ≥ 200 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Cell adhesion molecules are present on the surface of most cells (CAMs). Neural CAMs play a key role in the development of the embryonic nervous system. Expression of neural CAMs provides neurons with a means of attaching to and interacting with other cells and the extracellular matrix. The cell surface adhesion molecule N-CAM is important in mediating initial axon outgrowth and cell migration during development. In the mature nervous system, N-CAM is important in regulating cell interactions. Additionally, the expression of several CAMs, including N-CAM is altered following injury to the peripheral nervous system. Antibodies recognizing specific CAM forms have been instrumental in defining their roles in the nervous system. Monoclonal 12F8 specifically recognizes the polysialic acid on N-CAM. The embryonic form of N-CAM is highly polysialylated during development which is later replaced by the less polysialic acid (PSA)-laden mature forms of N-CAM. Clone 12F8 recognizes the polysialic acid on N-CAM. It recognizes all species tested, from fish through human. 12F8 reacts with a neuraminidase-sensitive epitope of N-CAM. The epitope recognized by 12F8 is more highly expressed in the embryonic than in the adult brain. As such, 12F8 is useful for distinguishing embryonic forms of N-CAM from adult forms which have decreased polysialic acid expression. In addition to brain, 12F8 reacts with some non-neuronal cells. However it does not appear to recognize mouse NK cells. Mouse membrane fractions were used as immunogen.

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

Western blot	Routinely Tested
Immunohistochemistry-frozen	Reported

Recommended Assay Procedure:

In western blot analysis, clone 12F8 recognizes N-CAM as a broad band ranging from 90 kDa to more than 200 kDa, depending on forms present.

Mouse embryonic brain is suggested as a positive control.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553940	Purified Rat IgM, κ Isotype Control	0.5 mg	R4-22
554016	FITC Goat Anti-Rat Ig	0.5 mg	Polyclonal

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 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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