

Technical Data Sheet

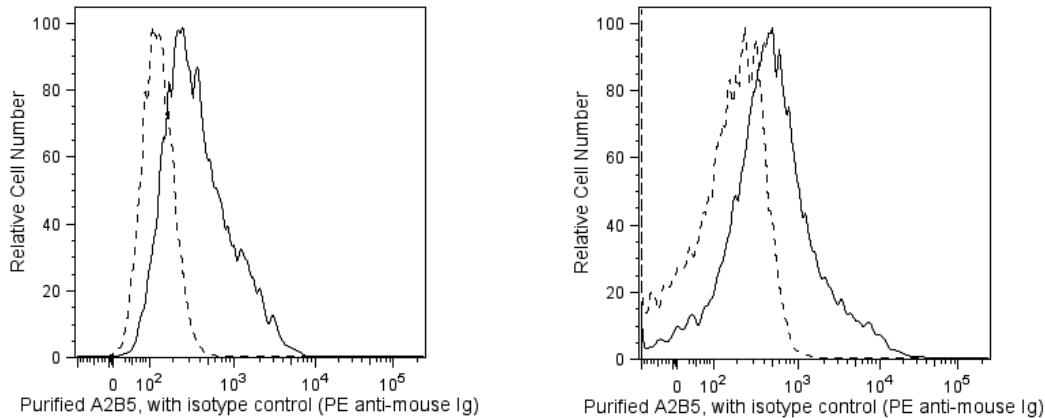
Purified Mouse Anti-A2B5

Product Information

Material Number:	563775
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	105/A2B5 (also known as antibody A2B5, F12A2B5; 105)
Immunogen:	Chicken embryo retina Cells
Isotype:	Mouse (BALB/c) IgM
Reactivity:	QC Testing: Mouse Tested in Development: Human Reported Reactivity: Rat, Chicken
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 105/A2B5 monoclonal antibody binds to gangliosides in neural tissue in the retina, brain, spinal cord, and dorsal root ganglia. The antigenic gangliosides are found on the plasma membrane of neural cell bodies, but not axons or dendrites. Expression levels of the gangliosides that mAb 105/A2B5 binds to, including GT3 and its O-acetylated derivative, decrease during embryonic development of the brain. Thus, mAb 105/A2B5 may be used to monitor the maturation of brain tissue. A2B5 antigens have also been associated with numerous tumors, including glioblastoma multiforme tumor cells, pancreatic islet tumor cells, and rat insulinoma cells, and are thought to contribute to chemoresistance and increased tumor proliferation and recurrence.



Flow cytometric analysis of A2B5 expression on mouse pancreatic tumor (insulinoma) cells and Human embryonic stem cell (hESC)-derived neurons. Mouse Beta-TC-6 cells (ATCC, CRL-11506; left panel) or human H9 (WiCell, Madison, WI) hESC-derived neurons (right panel) were harvested with Accutase™ Cell Detachment Solution (Cat. No. 561527). The cells were stained with either Purified Mouse IgM, κ Isotype Control (Cat. No. 555581, dashed line histograms) or Purified Mouse Anti- A2B5 monoclonal antibody (solid line histograms) at matched concentrations. Dot plots were derived from gated events based on light scattering characteristics of viable cells. Flow cytometry was performed on a BD LSRFortessa™ flow cytometry system.

Preparation and Storage

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

Application Notes

Application

Flow cytometry	Routinely Tested
Cytotoxicity	Reported
Immunofluorescence	Not Recommended
Bioimaging	Not Recommended

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555581	Purified Mouse IgM, κ Isotype Control	0.1 mg	G155-228
561527	Accutase™ Cell Detachment Solution	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. 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.
5. Accutase is a registered trademark of Innovative Cell Technologies, Inc.
6. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Balik V, Mirossay P, Bohus P, Sulla I, Mirossay L, Sarissky M. Flow cytometry analysis of neural differentiation markers expression in human glioblastomas may predict their response to chemotherapy. 2009; 29:845-858. (Clone-specific: Flow cytometry)

Eisenbarth GS, Walsh FS, Nirenberg M. Monoclonal antibody to a plasma membrane antigen of neurons. *Proc Natl Acad Sci U S A*. 1979; 76(10):4913-4917. (Immunogen: Cytotoxicity, Immunofluorescence)

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