

Technical Data Sheet

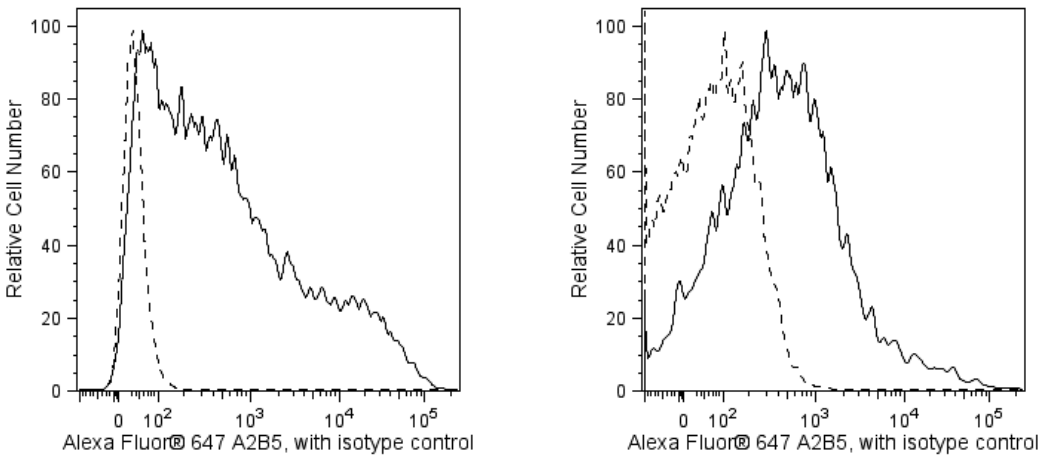
Alexa Fluor® 647 Mouse Anti-A2B5

Product Information

Material Number:	563776
Size:	50 tests
Vol. per Test:	5 µl
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 BSA, protein stabilizer, and ≤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 Alexa Fluor® 647 Mouse IgM, κ Isotype Control (Cat. No. 560806, dashed line histograms) or Alexa Fluor® 647 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 and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
Bioimaging	Not Recommended
Immunofluorescence	Not Recommended

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Suggested Companion Products

Catalog Number	Name	Size	Clone
561527	Accutase™ Cell Detachment Solution	100 ml	(none)
560806	Alexa Fluor® 647 Mouse IgM, κ Isotype Control	0.1 mg	G155-228
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-μl experimental sample (a test).
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
6. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. Accutase is a registered trademark of Innovative Cell Technologies, Inc.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
10. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

Balik V, Mirossay P, Bohus P, Sulla I, Mirossay L, Sarisky 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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