Technical Data Sheet

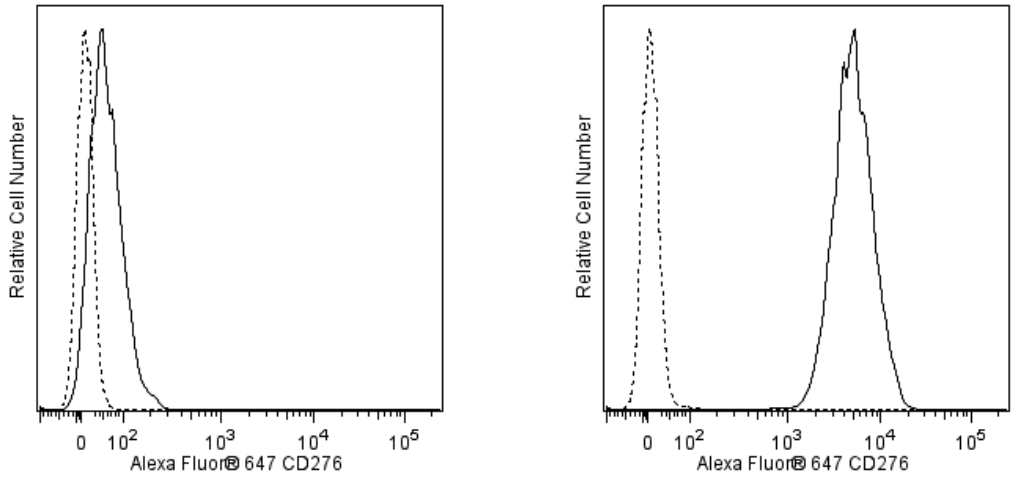
Alexa Fluor® 647 Rat Anti-Mouse CD276

Product Information

Material Number:	**562862**
Alternate Name:	Cd276; B7-H3; B7 homolog 3; B7h3; B7RP-2; Costimulatory molecule
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	MIH32
Immunogen:	Mouse B7-H3 Transfected Cell Line
Isotype:	Rat (SD) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MIH32 monoclonal antibody specifically binds to CD276, also known as B7-H3 (B7 homolog 3). CD276 is a type I transmembrane glycoprotein and member of the B7-family of regulatory proteins. The expression of B7-H3 can be induced on T cells, natural killer (NK) cells and antigen presenting cells. B7-H3 is up-regulated during the differentiation of monocytes into dendritic cells or during the interaction between dendritic cells and regulatory T cells. In addition, B7-H3 is found to be expressed on fibroblasts, fibroblast-like synoviocytes and epithelial cells. CD276 (B7-H3) can function as a positive or a negative regulator of T responses.



Flow cytometric analysis of mouse CD276 expression on CD276-transfected cells. *Untransfected mouse J558L myeloma cells (Left Panel) and mouse CD276-transfected J558L cells (Right Panel) were stained with Alexa Fluor® 647 Rat Anti-Mouse CD276 antibody (Cat. No. 562862; solid line histogram), or with an Alexa Fluor® 647 Rat IgG2a, κ Isotype Control (Cat. No. 557690; dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer 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

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
557690	Alexa Fluor® 647 Rat IgG2a, κ Isotype Control	0.1 mg	R35-95

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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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. 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.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
7. 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.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Chapoval AI, Ni J, Lau JS, et al. B7-H3: a costimulatory molecule for T cell activation and IFN-gamma production. *Nat Immunol.* 2001; 2(3):269-274. (Biology)
Hashiguchi M, Kobori H, Ritprajak P, Kamimura Y, Kozono H, Azuma M. Triggering receptor expressed on myeloid cell-like transcript 2 (TLT-2) is a counter-receptor for B7-H3 and enhances T cell responses. *Proc Natl Acad Sci U S A.* 2008; 105(30):10495-10500. (Clone-specific: Flow cytometry)
Sun M, Richards S, Prasad DV, Mai XM, Rudensky A, Dong C. Characterization of mouse and human B7-H3 genes. *J Immunol.* 2002; 168(12):6294-6297. (Biology)

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