

Technical Data Sheet

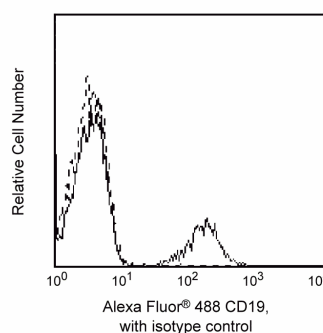
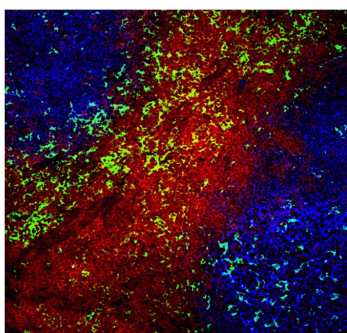
Alexa Fluor® 488 Mouse Anti-Human CD19

Product Information

Material Number:	557697
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	HIB19
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V CD19.11
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HIB19 monoclonal antibody specifically binds to the 95 kDa type I transmembrane CD19 glycoprotein. CD19 is expressed during all stages of B-cell maturation and differentiation, except on plasma cells. CD19 is also present on follicular dendritic cells. It is not found on T cells or on normal granulocytes. CD19 is a signal transduction molecule that regulates B cell development, activation, proliferation and differentiation. It associates with the complement receptor 2 (CD21), TAPA-1 (CD81), Leu 13, and/or MHC class II to form a signal transduction complex on the surface of B cells. Anti-CD19 clone HIB19 partially blocks the binding of clone B43, another CD19-specific monoclonal antibody.



Immunohistofluorescent analysis of CD19 expression by cells within human tonsil (left panel). A human tonsil cryosection (5 µm) was fixed with BD Cytotfix™ Fixation Buffer (Cat. No. 554655), blocked with 5% goat serum and 1% BSA diluted in 1x PBS, and stained with BD Pharmingen™ Purified Mouse Anti-Human CD11c antibody (Cat. No. 565805) followed by BD Horizon™ BV480 Goat Anti-Mouse Ig second step antibody (Cat. No. 564877, pseudo-colored green). Sections were thoroughly washed, then stained with Alexa Fluor® 488 Mouse Anti-Human CD19 antibody (Cat. No. 557697, pseudo-colored blue) and BD Horizon™ BV421 Mouse Anti-Human CD3 antibody (Cat. No. 562426/562427, pseudo-colored red). Images were captured on a standard epifluorescence microscope. Original magnification, 20x. **Profile of peripheral blood lymphocytes analyzed by flow cytometry (right panel).**

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunofluorescence	Tested During Development

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Suggested Companion Products

Catalog Number	Name	Size	Clone
557702	Alexa Fluor® 488 Mouse IgG1 κ Isotype Control	100 Tests	MOPC-21
565805	Purified Mouse Anti-Human CD11c	0.1 mg	3.9
564877	BV480 Goat Anti-Mouse Ig	50 µg	Polyclonal
554655	Fixation Buffer	100 mL	(none)
562426	BV421 Mouse Anti-Human CD3	100 Tests	UCHT1
562427	BV421 Mouse Anti-Human CD3	25 Tests	UCHT1
564907	DAPI Solution	1 mg	(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. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. 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.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. 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.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

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Nadler LM, Anderson KC, Marti G, et al. B4, a human B lymphocyte-associated antigen expressed on normal, mitogen-activated, and malignant B lymphocytes. *J Immunol.* 1983; 131(1):244-250. (Biology)

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