Technical Data Sheet

BUV395 Mouse Anti-Human CD20

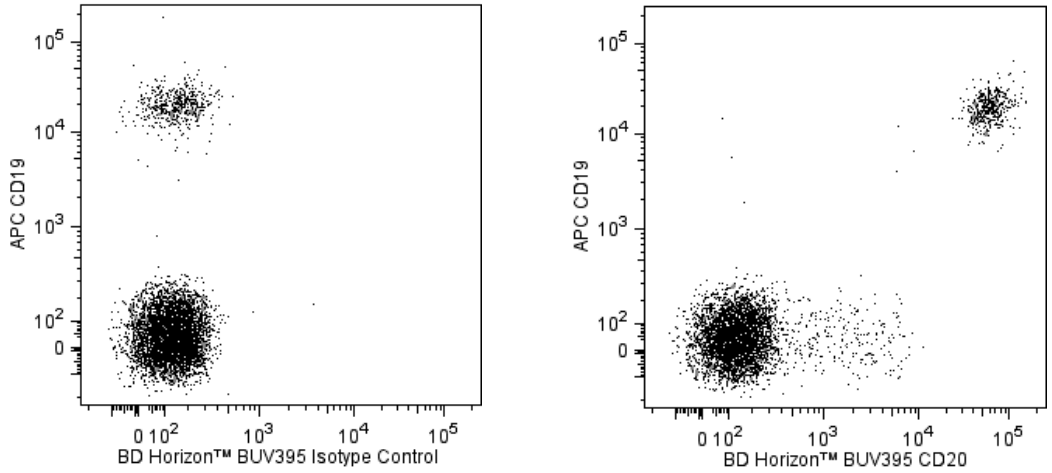
Product Information

Material Number:	**563781**
Alternate Name:	MS4A1; B1; Bp35; LEU-16; S7
Size:	25 tests
Vol. per Test:	5 µl
Clone:	2H7
Immunogen:	Human 6.16c1.3 B cell line
Isotype:	Mouse (C57BL/6) IgG2b, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Bovine
Workshop:	II B22; III B739, NL382; IV B201
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 2H7 monoclonal antibody specifically binds to CD20 that is encoded by the *MS4A1* (Membrane-spanning 4-domains, subfamily A, member 1) gene. CD20 is a 33-37 kDa unglycosylated four-transmembrane phosphoprotein. CD20 is expressed on pre-B-cells, resting and activated B cells and follicular dendritic cells but not on plasma cells. Low level CD20 expression is observed on a small subset of normal circulating T lymphocytes. The CD20 molecule is involved in the regulation of B-cell activation.

The antibody was conjugated to BD Horizon™ BUV395 which has been exclusively developed by BD Biosciences as an optimal dye for use on a 355 nm laser equipped instrument. With an Ex Max at 348 nm and an Em Max at 395 nm, this dye has virtually no spillover into any other detector. BD Horizon™ BUV395 can be excited with a 355 nm laser and detected with a 379/28 filter.



Two-color flow cytometric analysis of CD20 expression on human peripheral blood lymphocytes. *Whole blood was stained with APC Mouse Anti-Human CD19 antibody (Cat. No. 555415/561742) and either BD Horizon™ BUV395 Mouse IgG2b, κ Isotype Control (Cat. No. 563558; Left Panel) or BD Horizon™ BUV395 Mouse Anti-Human CD20 antibody (Cat. No. 563781/563782; Right Panel). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Two color flow cytometric dot plots show the correlated expression of CD20 (or Ig Isotype Control staining) versus CD19 derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. 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 with BD Horizon™ BUV395 under optimum conditions, and unconjugated antibody and free BD Horizon™ BUV395 were removed.

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563558	BUV395 Mouse IgG2b, κ Isotype Control	50 µg	27-35
563782	BUV395 Mouse Anti-Human CD20	100 tests	2H7
349202	BD FACS™ Lysing Solution	100 ml	(none)
555899	Lysing Buffer	100 ml	(none)
555415	APC Mouse Anti-Human CD19	100 tests	HIB19
561742	APC Mouse Anti-Human CD19	25 tests	HIB19

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. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Clark EA, Yokochi T. Human B cell and B cell blast-associated surface molecules defined with monoclonal antibodies. In: Bernard A, Boumsell L, Dausset J, Milstein C, Schlossman SF, ed. *Leukocyte Typing.* Berlin: Springer-Verlag; 1984:339-346. (Clone-specific: Blocking, Flow cytometry, Immunoprecipitation)

Hultin LE, Hausner MA, Hultin PM, Giorgi JV. CD20 (pan-B cell) antigen is expressed at a low level on a subpopulation of human T lymphocytes. *Cytometry.* 1993; 14(2):193-204. (Biology)

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV.* New York, NY: Oxford University Press; 1989:1-1182. (Biology)

Ledbetter JA, Clark EA. Surface phenotype and function of tonsillar germinal center and mantle zone B cell subsets. *Hum Immunol.* 1986; 15:30-43. (Immunogen: Blocking, Flow cytometry)

Loken MR, Shah VO, Dattilio KL, Civin CI. Flow cytometric analysis of human bone marrow. II. Normal B lymphocyte development. *Blood.* 1987; 70(5):1316-1324. (Biology)

Reinherz EL, Haynes BF, Nadler LM, Berstein ID, ed. *Leukocyte Typing II: Human B Lymphocytes.* New York: Springer-Verlag; 1986:1-560. (Clone-specific: Flow cytometry, Immunoprecipitation)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens.* New York: Oxford University Press; 1995. (Biology)

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