

Technical Data Sheet

BV605 Mouse Anti-Human CD43**Product Information**

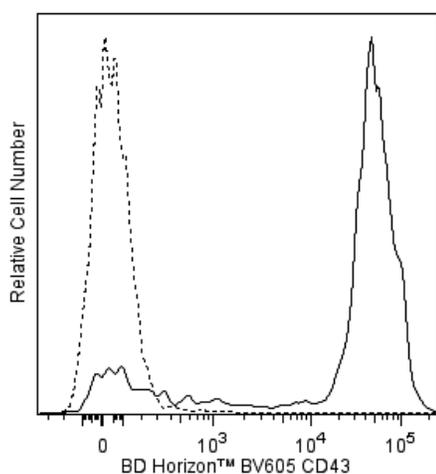
Material Number:	563378
Alternate Name:	SPN; Sialophorin; Galactoglycoprotein/GALGP; GPL115; LEUK; Leukosialin; LSN
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	1G10
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
RRID:	AB_2738166
Workshop:	VI N-L166
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1G10 monoclonal antibody specifically binds to CD43, a 95-135 kDa sialoglycoprotein that is highly expressed on most human leucocytes. CD43 is encoded by the *SPN* gene and is also known as Sialophorin, Galactoglycoprotein (GALGP), Leukosialin, and Leukocyte sialoglycoprotein. The CD43 antigen is expressed on T cells, pre-B cells and activated B cells, NK cells and granulocytes, but is not present on resting peripheral blood B cells, red blood cells, platelets and non-hematopoietic cells. CD43 is enzymatically shed from leucocyte surfaces following activation by various stimuli. CD43 appears to be involved in intercellular interactions that regulate T, B, and NK cell functions. This antibody is suitable for staining formalin-fixed, paraffin-embedded tissue sections with TUF pretreatment.

This antibody is conjugated to BD Horizon BV605 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max of 602-nm, BD Horizon BV605 can be excited by a violet laser and detected with a standard 610/20-nm filter set. BD Horizon BV605 is a tandem fluorochrome of BD Horizon BV421 and an acceptor dye with an Em max at 605-nm. Due to the excitation of the acceptor dye by the green (532 nm) and yellow-green (561 nm) lasers, there will be significant spillover into the PE and BD Horizon PE-CF594 detectors off the green or yellow-green lasers. BD Horizon BV605 conjugates are very bright, often exhibiting brightness equivalent to PE conjugates and can be used as a third color off of the violet laser.

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).



Flow cytometric analysis of CD43 expression on human peripheral blood lymphocytes. Whole blood was stained with BD Horizon™ BV605 Mouse Anti-Human CD43 antibody (Cat. No. 563378; solid line histogram) or with a BD Horizon™ BV605 Mouse IgG1, κ Isotype Control (Cat. No. 562652; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

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563378 Rev. 3



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™ BV605 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV605 were removed.

Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(none)
555899	Lysing Buffer	100 mL	(none)
349202	Lysing Solution 10X Concentrate	100 mL	(none)
562652	BV605 Mouse IgG1, κ Isotype Control	50 µg	X40

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. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
4. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from BD Horizon™ BV421 may be observed. Therefore, we recommend that individual compensation controls be performed for every BD Horizon™ BV605 conjugate.
8. CF™ is a trademark of Biotium, Inc.

References

Bazil V, Strominger JL. CD43, the major sialoglycoprotein of human leukocytes, is proteolytically cleaved from the surface of stimulated lymphocytes and granulocytes. *Proc Natl Acad Sci U S A*. 1993 May; 90(9):3792-3796. (Biology)

Borche L, Lozano F, Vilella R, Vives J. CD43 monoclonal antibodies recognize the large sialoglycoprotein of human leukocytes. *Eur J Immunol*. 1987; 17(10):1523-1526. (Biology)

Horejsi V, Stockinger H. CD43 Workshop Panel report. In: Kishimoto T, Tadamitsu Kishimoto . . et al., ed. *Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996*. New York: Garland Pub.; 1997:494-497.

(Clone-specific: Flow cytometry, Functional assay, Immunoprecipitation)

In: Zola H. *Leukocyte and stromal cell molecules : the CD markers*. Hoboken, N.J.: Wiley-Liss; 2007: 111-112. (Biology)