Technical Data Sheet

BV605 Mouse Anti-Human CD200

Product Information

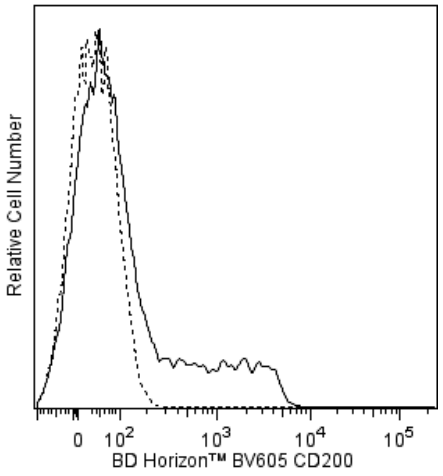
Material Number:	**562853**
Alternate Name:	OX-2; MOX1; MOX2 ; My033
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	MRC OX-104
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
RRID:	AB_2737840
Workshop:	VII 70655; IX 40
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MRC OX-104 monoclonal antibody specifically binds to CD200. CD200 is a 40-45 kDa type 1 transmembrane glycoprotein and is also referred to as OX2. CD200 is a member of the immunoglobulin superfamily of proteins. It contains two Ig domains, a single transmembrane region and a short cytoplasmic tail. CD200 is expressed on some dendritic cell subsets, and resting and activated T- and B-cells, but not on NK cells, monocytes, granulocytes, or platelets. It has been found on a subset of CD34+ progenitor cells. Interaction of CD200 with its receptor on macrophages induces a downregulation of macrophage activity in a variety of tissues, suggesting a regulatory function.

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 CD200 expression on human peripheral blood lymphocytes. *Whole blood was stained with either BD Horizon™ BV605 Mouse Anti-Human CD200 antibody (Cat. No. 562853; solid line histogram) or with a BD Horizon™ BV605 Mouse IgG1, κ Isotype Control (Cat. No. 562652; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from 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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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)
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

Hoek RM, Ruuls SR, Murphy CA, et al. Down-regulation of the macrophage lineage through interaction with OX2 (CD200). *Science.* 2000; 290(5497):1768-71. (Biology)

Mason D. David Mason .. et al., ed. *Leucocyte typing VII : white cell differentiation antigens : proceedings of the Seventh International Workshop and Conference held in Harrogate, United Kingdom.* Oxford: Oxford University Press; 2002(Clone-specific)

Wright GJ, Jones M, Puklavec MJ, Brown MH, Barclay AN. The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans. *Immunology.* 2001; 102(2):173-179. (Biology)

Wright GJ, Puklavec MJ, Willis AC, et al. Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function. *Immunity.* 2000; 13(2):233-242. (Biology)