

BD Horizon Brilliant™ Violet 605 Analyte Specific Reagents

Violet Laser Reagents

Features

- Maximizes flexibility as a bright color choice for a violet laser
- Enables excellent resolution of dim populations
- Supports multiplexing with other BD Biosciences ASRs
- Developed using Nobel Prize winning chemistry

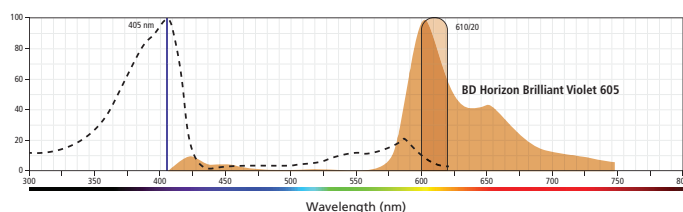


Figure 1. Absorption and emission spectra: excitation maximum: 407 nm, emission maximum: 602 nm. Filter: 610/20 nm.

Resolution (Stain Index)			
Specificity (Clone)	BD Horizon BV605	BD Horizon™ V450	BD Horizon™ V500-C
CD7 (M-T701)	86	49	15
CD11c (B-ly6)	31	22	4
CD24 (ML5)	48	14	36
Average	55	28	18

BD Horizon BV605 Resolution Relative To:		
Specificity (Clone)	BD Horizon V450	BD Horizon V500-C
CD7 (M-T701)	1.78	5.71
CD11c (B-ly6)	1.41	7.36
CD24 (ML5)	3.38	1.35
Average	2.19	4.80

Table 1. BD Horizon BV605 exhibits a larger Stain Index than BD Horizon V450 and BD Horizon V500-C

A Stain Index comparison of lysed whole blood stained with BD Horizon BV605, BD Horizon V450, and BD Horizon V500-C. All conjugates were run at optimal concentrations on a 10-color BD FACSCanto™ System. For illustrative purposes. Performance may vary based on instrument and other factors.

BD Biosciences expands panel design options

BD Biosciences provides new options for multicolor flow cytometry by offering BD Horizon Brilliant™ Violet 605 (BV605) analyte specific reagents (ASRs). Because of the brightness of the BD Horizon BV605 dye, new opportunities are available for dim marker identification using a violet laser. The dye's spillover properties, stability under light and in standard buffers, and compatibility with blood collection tubes offer ease-of-use for a range of applications. Additionally, to support multiplexing, BD Horizon BV605 reagents have been tested to confirm compatibility with ASRs conjugated to other BD Biosciences dyes.

Bright dye for a violet laser

BD Horizon BV605 is a tandem fluorochrome that combines BD Horizon Brilliant™ Violet 421 (BV421) with an acceptor dye with an emission maximum at 602 nm. Developed using Nobel Prize winning chemistry, the dye provides a bright choice for a violet laser. With a maximum excitation of 407 nm and an emission peak at 602 nm (Figure 1), BD Horizon BV605 can be used on flow cytometers equipped with a violet laser and appropriate filters, such as the 10-color BD FACSCanto™ System*. Exhibiting a larger Stain Index than BD Horizon™ V450 or BD Horizon™ V500-C (Table 1), the fluorochrome enables improved population resolution of dim populations (Figure 2).

Compatible with multiplexing for multicolor flexibility

BD Horizon BV605 ASRs exhibit low spillover into adjacent channels, making it easier to incorporate them into multicolor experiments (Table 2). Additionally, they are compatible in combination with ASRs conjugated to other BD Biosciences dyes to support multicolor experiments**.

Stable for a range of workflows

BD Horizon BV605 ASRs are stable in ambient light for at least 24 hours and also stable at room temperature for at least 24 hours following whole blood staining and fixation with 1% paraformaldehyde. Additionally, they are able to be used with common buffers and other fixatives for cell surface staining, expanding options for staining protocols. This, combined with their compatibility with both EDTA and heparin blood collection tubes, offers ease-of-use for a range of laboratory protocols.

* Seven- to ten-color assays are for Research Use Only.

** If two or more BD Horizon Brilliant dyes are combined in the same multicolor staining cocktail, the dyes may interact with each other without the use of a buffering solution, such as the BD Horizon™ Brilliant Stain Buffer.

Visit bdbiosciences.com for more information.

Analyte Specific Reagent. Analytical and performance characteristics are not established.



BD Horizon Brilliant™ Violet 605 Analyte Specific Reagents

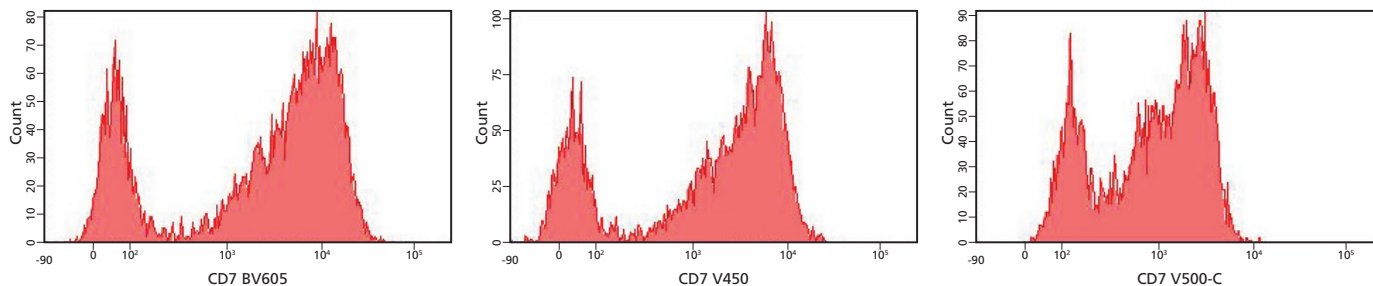


Figure 2. BD Horizon BV605 stained cells demonstrate better resolution of the positive population than cells stained with BD Horizon V450 or BD Horizon V500-C

Lysed whole blood stained with BD Horizon BV605, BD Horizon V450, and BD Horizon V500-C conjugated to CD7 (M-T701) gated on lymphocytes on a BD FACSCanto™ system, 10-color configuration.

Specificity (Clone)	Spillover (% spillover into BD Horizon V450)	Spillover (% spillover into BD Horizon V500-C)
CD7 (M-T701)	5.0	0.8
CD11c (B-ly6)	7.6	1.1
CD24 (ML5)	4.8	0.7
Average	5.8	0.9

Table 2. Across specificities BD Horizon BV605 spillover values are low into adjacent channels

Percent spillover into adjacent channels of lysed whole blood stained with CD7, CD11c, and CD24 BD Horizon BV605 on a BD FACSCanto™ system, 10-color configuration.

BD Horizon Brilliant™ Violet 605 Analyte Specific Reagents

Description	React.	Clone	Isotype	Size	Cat.No.
CD1a	Hu	SK9	Mouse IgG _{2b} , κ	100 Tests	657711
CD7	Hu	M-T701	Mouse IgG ₁ , κ	100 Tests	657885
CD11c	Hu	B-ly6	Mouse IgG ₁ , κ	100 Tests	657713
CD24	Hu	ML5	Mouse IgG _{2a} , κ	100 Tests	657715
CD117	Hu	104D2	Mouse IgG ₁ , κ	100 Tests	657871
Mouse IgG1 Isotype Reagent	Hu	X40	Mouse IgG ₁ , κ	100 Tests	657721

Class 1 Laser Product.

Analyte Specific Reagent. Analytical and performance characteristics are not established.

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