



# BD Horizon RealBlue™ 705 Reagents

The superior alternative to PerCP-Cy5.5 and BD Horizon Brilliant™ Blue 700 (BB700) Reagents

BD Horizon RealBlue™ 705 (RB705) Reagents are part of a comprehensive family of laser-specific reagents. The RB705 fluorochrome is specially designed to produce less spillover, which improves panel resolution, enabling high-parameter experiments for flow cytometry.

RB705 is a bright fluorochrome well suited for low/medium-expression surface and intracellular markers and works well for conventional and spectral flow cytometry.

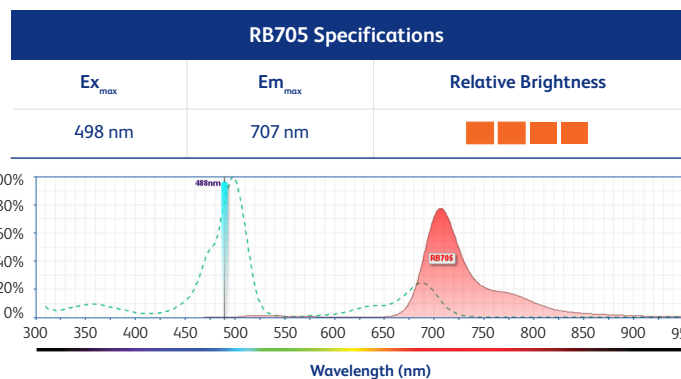
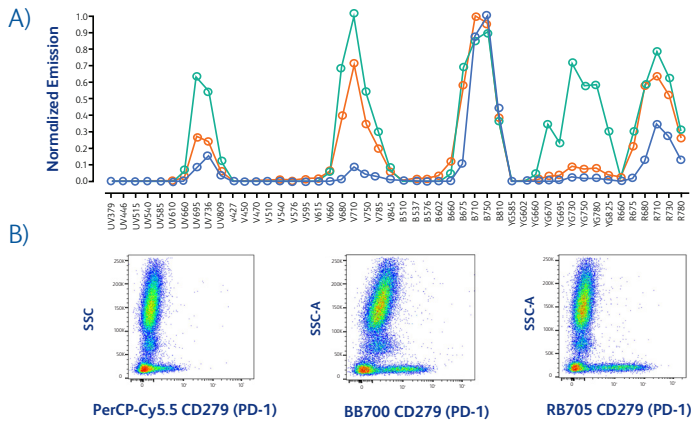


Figure 1. Excitation and emission spectra of the RB705 fluorochrome.



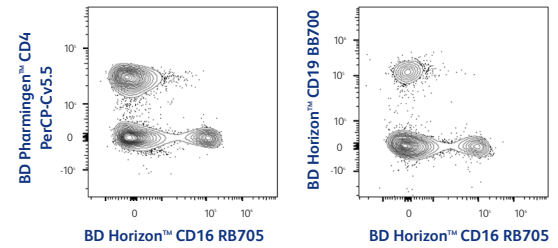
## RB705 is brighter and has less spillover than PerCP-Cy5.5 and BB700



**Figure 2. RB705 has minimal cross laser excitation from the 561-nm yellow-green laser and can easily resolve low-expression markers.**

A) Normalized emission profile of RB705 compared to BB700 and PerCP-Cy5.5, demonstrating the lower emission into UV, Violet, Yellow-Green and Red channels. B) Human whole blood was stained with PerCP-Cy5.5, BB700 or BD Horizon™ RB705 Reagent (right) CD279 (EH12.1) and acquired on a BD FACSymphony™ A5 SE Cell Analyzer with compensation.

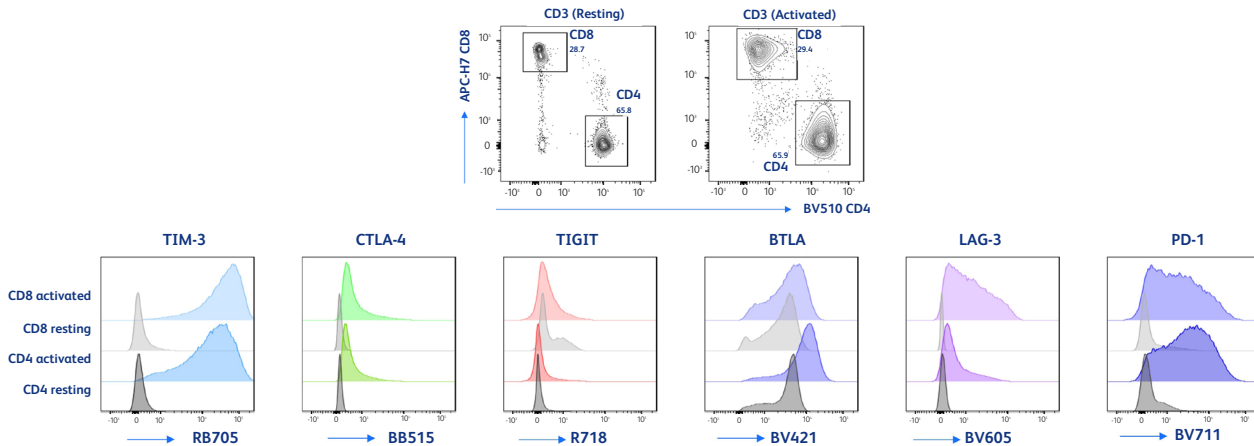
RB705 can be used together with either BB700 or PerCP-Cy5.5 in a spectral flow cytometry panel to expand the number of parameters measured within a single sample



**Figure 3. RB705 can be used with PerCP-Cy5.5 or BB700 for spectral flow cytometry.**

Human whole blood was stained with CD16 RB705, CD3 BV711 and CD4 PerCP-Cy5.5 (left) or CD19 BB700 (right). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer. Two-color flow cytometry contour plots were derived from lymphocytes. Flow cytometric analysis was performed using a BD FACSDiscover™ S8 Cell Sorter.

## RB705 easily detects the T cell inhibitory molecule TIM-3 upon cell activation



**Figure 4. Expression of inhibitory markers on activated T cells as compared to resting T cells stained with 12-color T cell panel containing RB705.**

Upper row: Bivariate plots show CD4/CD8 T cell population derived from resting and activated T cells on Day 3 following immunostaining by 12-color T cell inhibitory panel. Resting control T cells from the same donor were subjected to similar culture conditions without activation. Samples were analyzed on a 3-laser BD FACSLyric™ Cell Analyzer.

Bottom row: Histogram overlays show expression of T cell inhibitory markers derived from CD4+ resting T cells (deep gray shade), CD4+ activated T cells (deep colored), CD8+ resting T cells (light gray) or CD8+ activated T cells (light colored).



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BD flow cytometers are Class 1 Laser Products.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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