BD OptiBuild™ custom reagents

The reagents you need, when you need them

Features

- Access to new antibody-dye combinations made on demand with rapid turn-around times
- 50-µg vial sizes for evaluation of new reagents for optimal panel design
- Consistent performance to ensure reliable results

BD OptiBuild™ custom reagents offer more fluorochrome options with the antibodies you need. Whether you want to minimize spectral overlap, or add new markers to complex experiments, BD OptiBuild reagents provide flexibility to evaluate new colors and simplify your panel design.

Unlike traditional large scale, expensive custom conjugates, these reagents come in convenient 50-µg vials and can be ordered the same way as any catalog reagent. Your reagents are made on demand, and usually ship in less than 72 hours.*

Expanding the portfolio of available reagents

BD OptiBuild reagents complement BD Life Sciences broad portfolio of reagents by providing access to antibody-dye combinations that are not currently offered. The BD OptiBuild program is the result of years of testing and analysis to offer robust reagents that provide a valuable alternative to traditional off-the-shelf reagents. Leveraging the principles of antigen density and relative fluorochrome brightness, BD OptiBuild reagents have been carefully selected to ensure that they can be readily integrated into your ongoing research.

*US shipping time is typically overnight. Shipping times vary by region according to shipping schedules. Since production of BD OptiBuild reagents begins immediately after order placement, pending orders cannot be canceled.

BD

Reliable, high performing reagents

Access to the right reagents can improve resolution and data quality, ultimately leading to deeper scientific insights from your research. In development, BD OptiBuild reagents were extensively evaluated in single-color and multicolor experiments to ensure they will perform with the same high quality and reliability as traditional reagents.

Figure 1 displays comparative multicolor data demonstrating analogous results when using traditional reagents or BD OptiBuild formats of the same reagents.** Incorporate BD OptiBuild reagents into your experimental workflow to optimize panel design and avoid redesigning your panels because the reagents you need are unavailable.

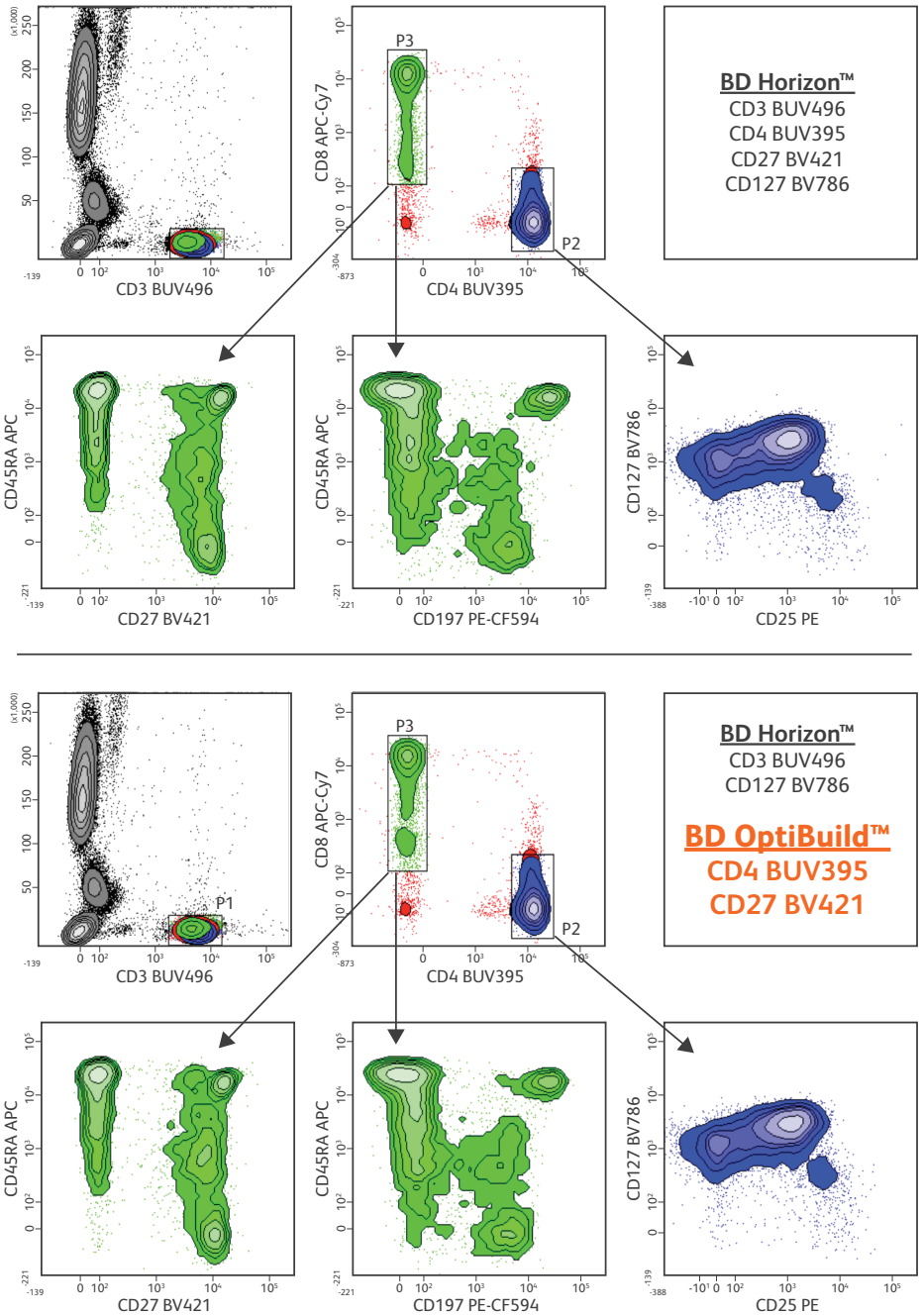

Figure 1. Multicolor staining

Whole blood was stained with CD3 BUV496 (Cat. No. 564810), CD4 BUV395 (Cat. No. 563550 or BD OptiBuild), CD8 APC-Cy™7 (Cat. No. 557834), CD27 BV421 (Cat. No. 562513 or BD OptiBuild), CD45RA APC (Cat. No. 550855), CD197 PE-CF594 (Cat. No. 562381), CD25 PE (Cat. No. 555432), and CD127 BV786 (Cat. No. 563324) and then analyzed for various T-cell subsets. Both panels can effectively resolve the population of interest. Flow cytometry was performed using a BD LSRFortessa™ X-20 flow cytometer.

**BD OptiBuild reagents in this experiment are for demonstration purposes only. BD OptiBuild reagents are complementary to the existing portfolio. Therefore these BD OptiBuild permutations will not be available for sale.

The future of BD OptiBuild offerings

The BD OptiBuild portfolio expands fluorochrome options for over 200 cell surface antibodies across the six BD Horizon Brilliant™ Violet dyes (BV421, BV510, BV605, BV650, BV711 and BV786) as well as BUV395. We are continually evaluating new additions to the BD OptiBuild family. This includes dyes and antibodies to give you access to the permutations you need to accelerate discovery in your research lab. Visit our website at bdbiosciences.com/optibuild to see a full list of BD OptiBuild products, information about what is coming next, more sample data and to learn more about these custom reagents.

Consistent performance for your research

Since BD OptiBuild reagents are made on demand, every reagent vial will contain a new batch. We know that consistent performance is of utmost importance for reliable research results, so a rigorous manufacturing process was developed and extensively tested for lot-to-lot consistency.

The data in Figure 2 shows multiple conjugation events using the same batches of dye and antibody, demonstrating highly reproducible performance. We also assessed the impact of other potential sources of variability by using different batches of dye as demonstrated in example data in Figure 3, Figure 4 and Figure 5. These reagents will continually perform with minimal lot-to-lot variation so that you can be confident in your results in a multi-site or longitudinal study.

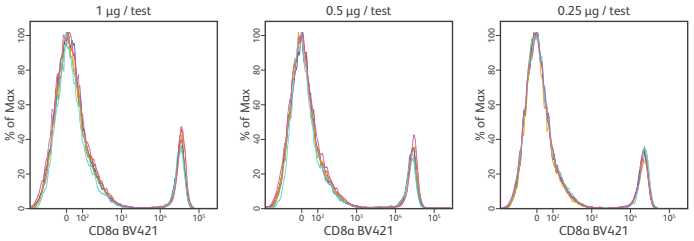

Figure 2. Overlapping histograms of six lots of Ms CD8a BV421 at three concentrations

Fluorescence histogram showing mouse CD8a expression with six separate lots of BD OptiBuild conjugated antibodies made with the same dye and antibody lots. All six lots were assessed at three different concentrations. Data was derived from gated events with the forward and side light-scatter characteristics of intact splenocytes.

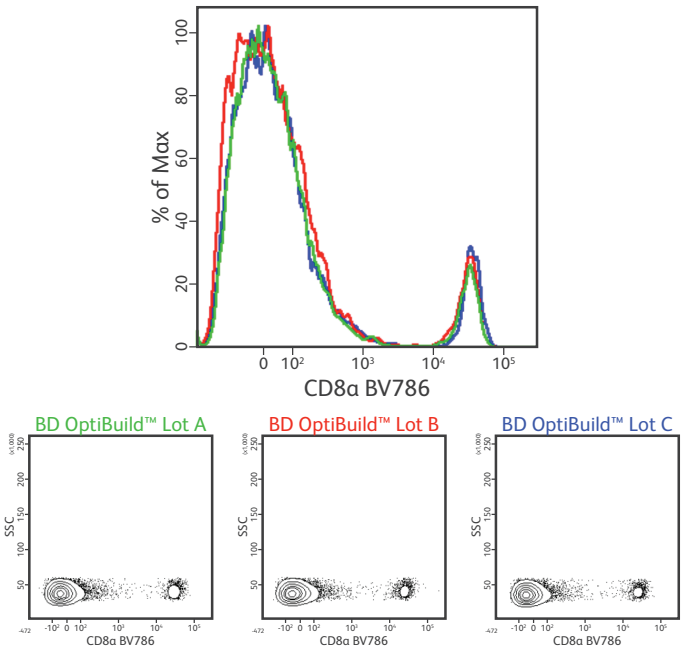

Figure 3. Three overlapping histograms of human CD8a BV786

Top: Fluorescence histogram showing mouse CD8a expression with three separate lots of BD OptiBuild conjugated antibodies made with different dye lots. Data was derived from gated events with the forward and side light-scatter characteristics of intact splenocytes.

Bottom: Mouse CD8a expression identified by three separate lots of BD OptiBuild conjugated antibodies made with different dye lots shown against side light-scatter characteristics.

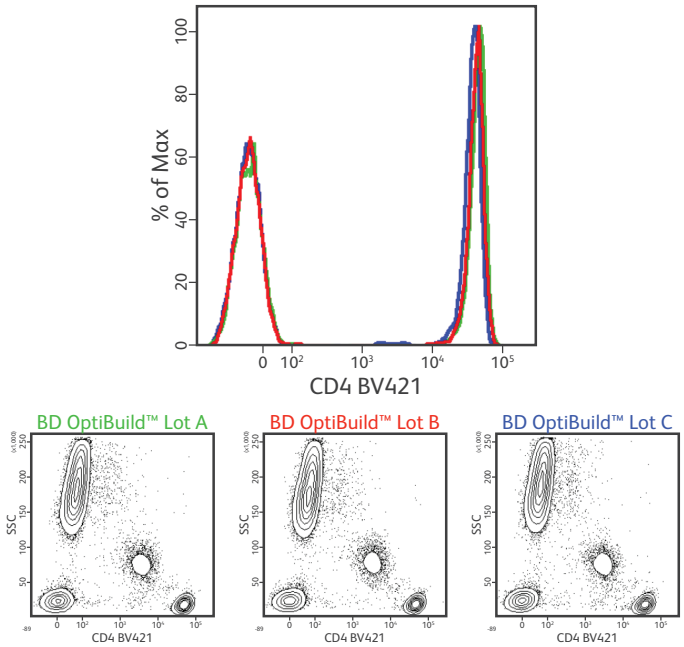

Figure 4. Three overlapping histograms of human CD4 BV421
Top: Fluorescence histogram showing CD4 expression with three separate lots of BD OptiBuild conjugated antibodies made from different dye lots. Data was derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes.

Bottom: CD4 expression identified using three separate lots of BD OptiBuild conjugated antibodies made with different dye lots shown vs side light-scatter characteristics.

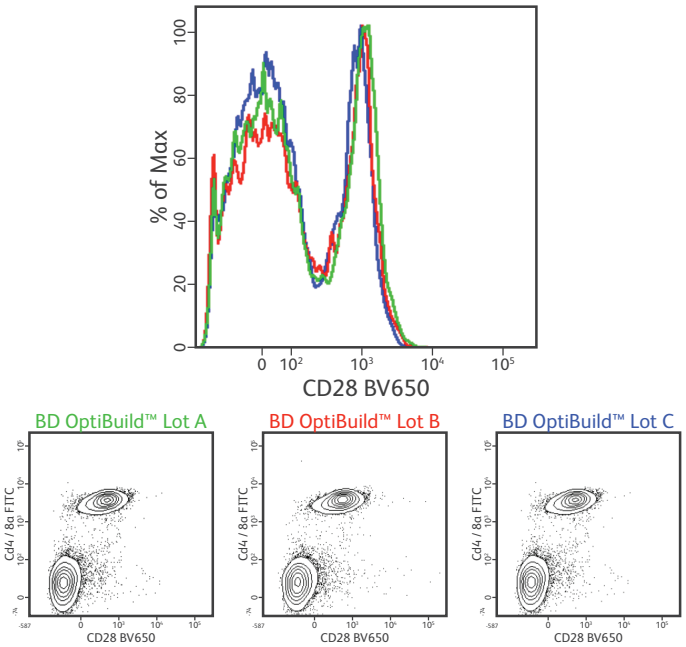

Figure 5. Three overlapping histograms of mouse CD28 BV650
Top: Fluorescence histogram showing mouse CD28 expression with three separate lots of BD OptiBuild conjugated antibodies made with different dye lots. Data was derived from gated events with the forward and side light-scatter characteristics of intact splenocytes.

Bottom: Mouse CD28 expression identified using three separate lots of BD OptiBuild conjugated antibodies made with different dye lots co-stained with mouse CD4 and mouse CD8a antibodies.

23-18275-01

BD Life Sciences, San Jose, CA, 95131, USA

bdbiosciences.com