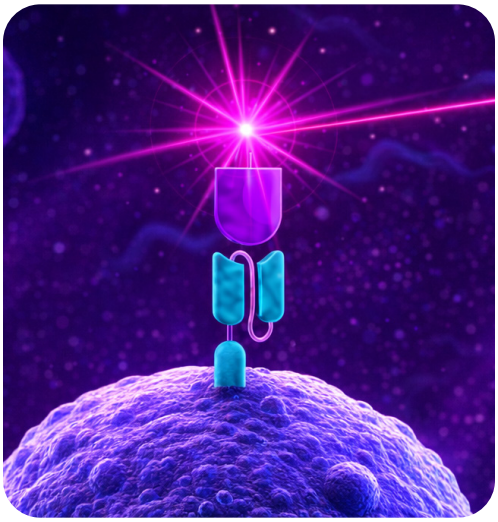
BD® CAR Detection Reagents

For BCMA and CD19 CAR cells

Bright. Simple. Reliable.

Accurate detection of Chimeric Antigen Receptor (CAR) cells is critical throughout every stage of cell therapy development—from manufacturing quality control to immune monitoring research. Our solution offers high sensitivity for reliable identification of rare CAR⁺ cells, without the need for secondary staining, which can often be cumbersome and time-consuming.

BD® CAR Detection Reagents uniquely combine industry-leading brightness and a ready-to-use format, to enable sensitive, rapid and reproducible detection even at very low CAR-T cell frequencies. Available for BCMA and CD19, BD® CAR Detection Reagents feature a variety of formats for maximum panel design flexibility.



Bright

Industry-leading brightness and stain index (Figure 1).

Rare CAR⁺ cells detection at ≤0.1% frequency (validated in whole blood and PBMCs, Figure 2).

Simple

One-step, ready-to-use reagents—no additional washes necessary with minimal hands-on time to help streamline workflows.

Easily compatible with large multicolor panels, buffers and cytometers for maximum flexibility.

Reliable

Manufactured under GMP and ISO13485 standards for consistent and reliable results.

Available in a broad range of formats and can also be customized with specific conjugates to meet your unique workflow needs.

	Violet	Blue	Blue/YellowGreen			Red	
Target	BD Horizon Brilliant™ Violet 421	Alexa Fluor™ 488	PE	BD Horizon RealBlue™ 705	BD Horizon RealBlue™ 780	Alexa Fluor™ 647	BD Horizon™ Red 718
BCMA	✓	✓	✓	Inquire	Inquire	✓	Inquire
CD19	✓	✓	✓	Inquire	Inquire	✓	Inquire

BD

High-resolution detection across CAR expression levels, including rare CAR+ cells

In these figures, we compare the ability of BD and competitor reagents to resolve high, medium and low CAR expression. Results are shown as a percentage of BD staining index. Error bars represent the standard error of the mean (S.E.M.) from three replicate staining wells. *p-value < 0.00015; **p-value < 0.0015

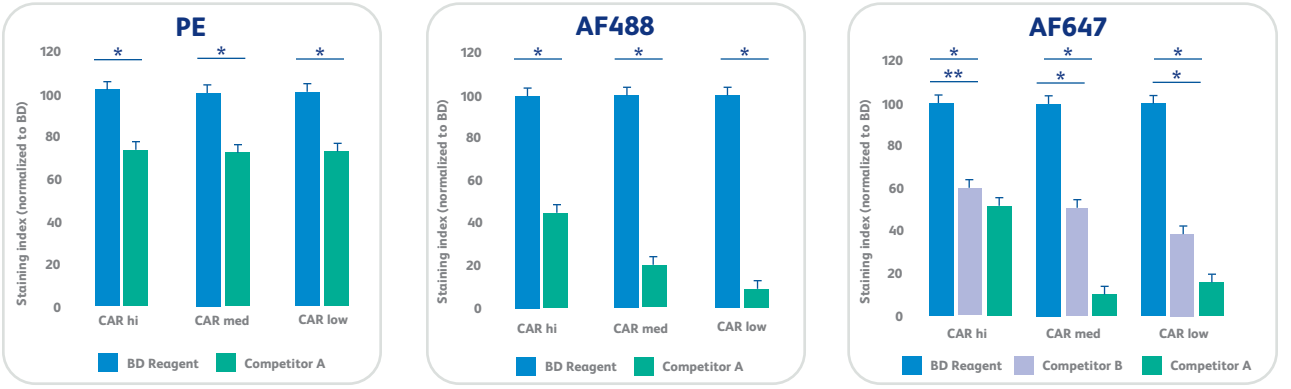


Figure 1. BD® CAR Detection Reagents provide superior resolution across a range of CAR expression levels

Jurkat cells were infected with BCMA-(scFv) CAR lentivirus and single-cell cloned to obtain CAR high, CAR medium and CAR low clones. These clones were stained using BD® CAR Detection Reagents and competitor reagents at recommended concentrations for 30 minutes at room temperature (RT). BD® CAR Detection Reagents were used at 0.25 µg for PE and AF488 and 0.125 µg/test for the AF647 conjugate.

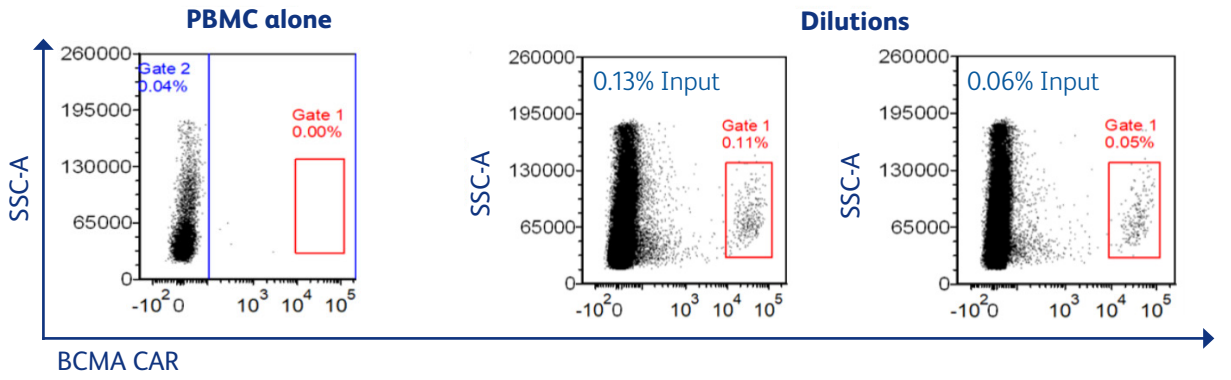


Figure 2. BD® CAR Detection Reagents enable reliable identification of rare CAR-expressing cells

A Jurkat-CAR clone isolated from BCMA-(scFv) CAR lentivirus-infected cells was spiked into PBMC from a healthy donor in the Associate Sample Collection Program (ASCP) at approximately 4% and 9 additional descending 2-fold dilutions. Jurkat-CAR-spiked PBMC were stained with BD Horizon Brilliant™ Violet 421 conjugated BD® BCMA CAR Detection Reagent at 0.1 µg/test for 30 min at room temperature followed by flow cytometric analysis. Red box highlights detection of CAR+ cells at ≤0.1% of PBMC.

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