

Right Reference Standard™

Fluorescent Intensity Standards



BEADS • ABOVE THE REST



Right Reference Standard™ products provide an internal point of reference for stained cell populations.

RIGHT REFERENCE STANDARD™

Analysis Range

Flow cytometric assays can cover a range of six decades of fluorescence intensity, however, the majority of commercial instruments have an analysis range of only four decades. The fluorescence intensity of stained cell populations vary with the antigen expression of the cells. For the majority of leukocyte phenotyping, the middle of the analysis range is utilized, however, other populations, such as red blood cells and platelets, fluoresce toward the low end of the analysis range, while still others, such as plasma cells and abnormal lymphoma cells, fluoresce very intensely. In order to provide a standard that fluoresces in the same analysis range as your labeled cells, three fluorescence intensity standards, corresponding to low, medium, and high ranges, have been established.

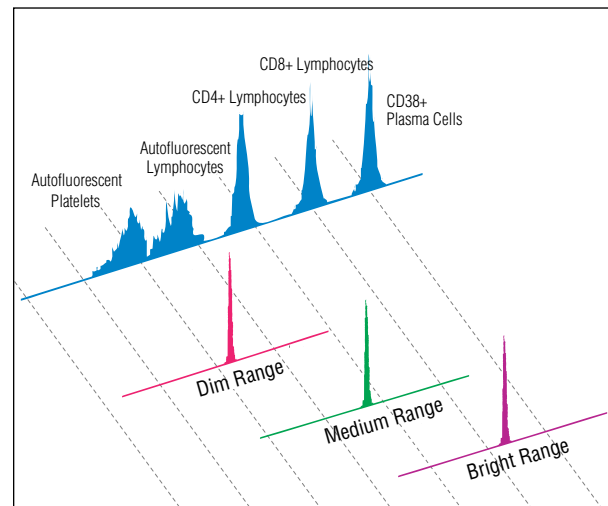
How Do They Work?

The appropriate Right Reference Standard is acquired prior to running cell samples, and ensures that the correct unified analysis range is consistently used. The Right Reference Standard may even be added to your samples to provide an internal fluorescent point of reference. Simply adjust the PMT setting such that the Right Reference Standard of choice falls in the middle of the reporting scale.

Spectral Matching

The Right Reference Standard microspheres are surface-labeled with the same fluorochromes

that are routinely used to label cells. Because the fluorochromes are on the surface of the bead, they are free to interact with their environment just as the fluorochromes on a stained cell will. The result is a standard that exhibits the same excitation and emission properties as your stained samples, under a variety of different conditions. We call this being “environmentally responsive.” Unlike internally-dyed standards, the Right Reference Standard can alert you to adverse conditions in your system, such as contaminants or changes in pH.



Right Reference Standard™ products are available in a variety of fluorescence intensity ranges.

RIGHT REFERENCE STANDARD™

Cat. #	Fluorochrome	Intensity
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510	Fluorescein	Low
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511	Fluorescein	Medium
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512	Fluorescein	High
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513	Phycoerythrin	Low
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514	Phycoerythrin	Medium
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515	Phycoerythrin	High
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Cat. #	Fluorochrome	Intensity
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516	PE-Cy™5	Low
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517	PE-Cy™5	Medium
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518	PE-Cy™5	High
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519	Allophycocyanin	Low
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520	Allophycocyanin	Medium
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521	Allophycocyanin	High
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Cy™, including Cy5, is a trademark of GE Healthcare Limited. These products are manufactured under license from Carnegie Mellon University under U.S. Patent Number 5,268,486 and related patents.

Common Fluorochromes

The Right Reference Standard are available labeled with FITC, PE, PE-Cy5, or APC. Each is offered in low, medium, and high fluorescence intensity ranges.

TYPICAL APPLICATIONS

Analysis Ranges of Common Cell Lines

[Low Level](#)

erythrocyte, platelet analysis

[Medium Level](#)

majority of leukocyte immunophenotyping

[High Level](#)

cell lines, abnormal markers in leukemia and lymphoma

Alignment

Right Reference Standards have narrow fluorescence coefficients of variation (CVs), and may be used for verifying the alignment of the laser and flow cell. Reference CVs are provided on the Certificates of Analysis.



Bangs Laboratories supplies a large variety of uniform polymeric and silica microsphere products setting the standards for diagnostic, research, and flow cytometry applications. No matter the project, we have a product that serves or we'll work to custom-design a solution to fit. And that's not the half of it.

We also stand behind our products. Regardless of the size of your question or the size of your company, we offer tech support, absolutely free.

Sound interesting? Give us a call.



317.570.7020