

# Achieving More: 21 Colors with Just 2 Lasers

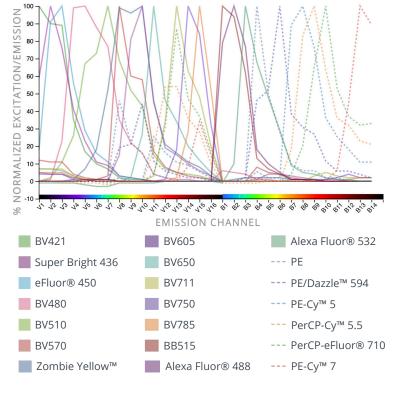
Until recently, developing multicolor fluorescence-based flow cytometry assays on a two-laser system has been limited to approximately 10 colors because of two limitations: hardware designs with 10 or fewer detectors; and conventional optical designs with 1 detector assigned to 1 fluorochrome<sup>1</sup>.

With 30 fluorescence detectors and only 2 lasers, the Cytek® Northern Lights 2-laser system (405 & 488 nm) configuration has the capability of getting you more information from your data with fewer lasers to maintain. Cytek has developed a 21-color human immunophenotyping panel acquired from just a single tube, with outstanding resolution.

### **21-Color Panel**

A summary of reagents and a spectral overlay of the 21 fluorochromes used in our 21-color panel are shown below. The panel is demonstrated on the next page using thawed human peripheral blood mononuclear cells that were stained, washed, and analyzed on a Northern Lights 2-laser (405 & 488 nm) cytometer.

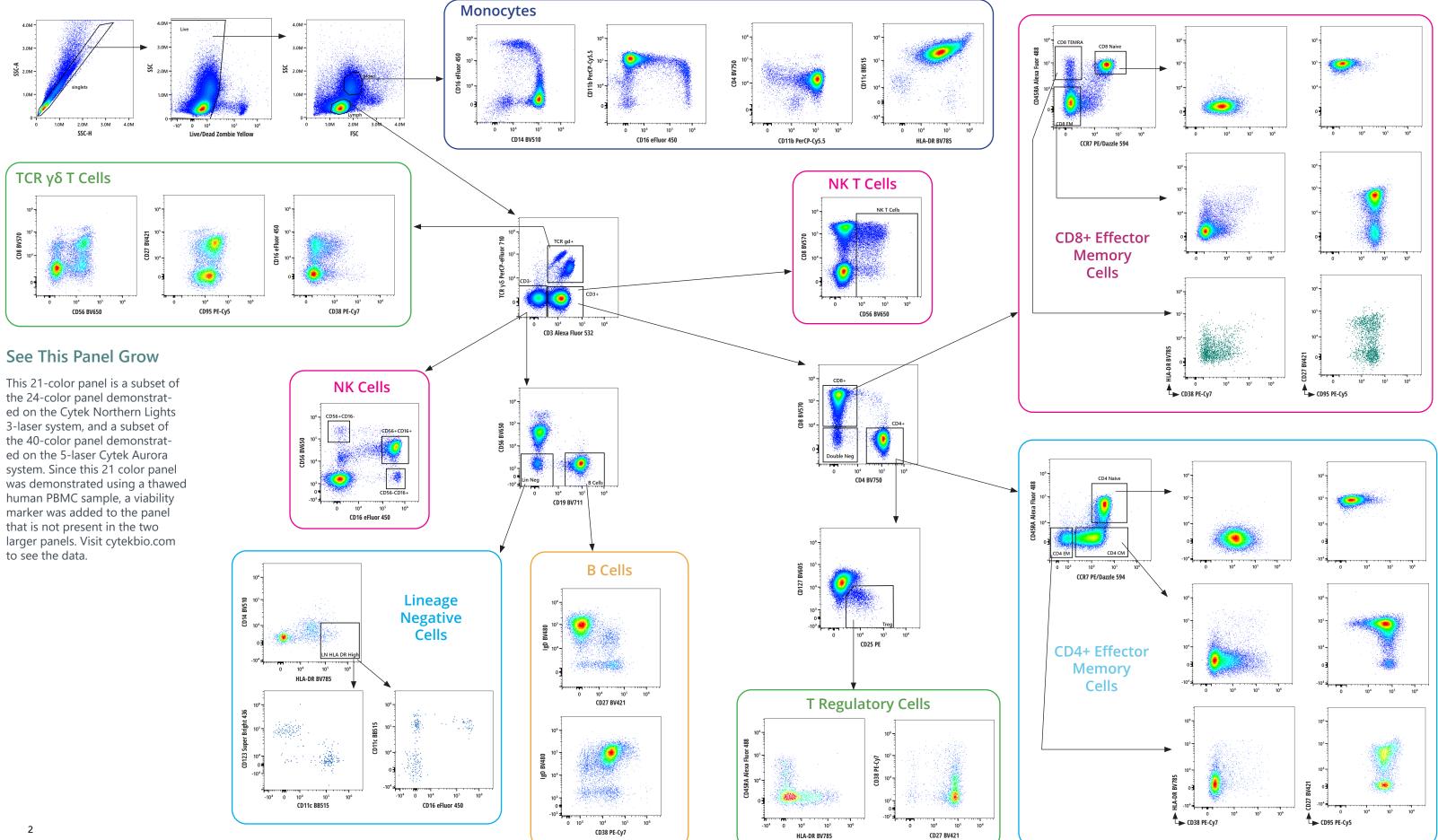
	Vendor	Cat. No.
CD11c BD Horizon™ BB515	BD™ Biosciences	566349
CD45RA Alexa Fluor® 488	BioLegend®	304114
CD3 Alexa Fluor® 532	Thermo Fisher	58-0038-42
CD25 PE	BioLegend	353236
CCR7 PE/Dazzle™ 594	BioLegend	353236
CD95 PE/Cy™5	BioLegend	305610
CD11b PerCP/Cy™5.5	BioLegend	301328
TCR γδ PerCP-eFluor® 710	Thermo Fisher	46-9959-42
CD38 PE/Cy™7	BioLegend	356608
CD27 Brilliant Violet 421™	BioLegend	302824
CD123 Super Bright 436	Thermo Fisher	62-1239-42
CD16 eFluor® 450	Thermo Fisher	48-0168-42
lgD BD Horizon™ BV480	BD Biosciences	566138
CD14 Brilliant Violet 510™	BioLegend	301842
Zombie Yellow™	BioLegend	423104
CD8 Brilliant Violet 570™	BioLegend	301038
CD127 Brilliant Violet 605™	BioLegend	351334
CD56 Brilliant Violet 650™	BioLegend	318344
CD19 Brilliant Violet 711™	BioLegend	363022
CD4 Brilliant Violet 750™	BioLegend	344644
HLA-DR Brilliant Violet 785™	BioLegend	307642



Spectrum overlay plot for the 21 fluorochromes used in the panel was created using the Cytek Spectrum Viewer found on the Cytek website at https://spectrum.cytekbio.com.

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To learn more, read the Spectral Analysis Meets Flow Cytometry white paper at cytekbio.com/blogs/resources.







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