

Cytobank Flow Cytometry Data Analysis Software

Features

Software solution for the analysis of activation-dependent responses in flow cytometry

Store, share, and manage experiments in a secure Web-hosted environment

Use batch analysis and gating of uploaded FCS data files for automated data visualization and statistical analysis

Easily switch between figure types and data shown

BD Biosciences has partnered with Cytobank Inc. to provide customers a novel, web-based flow cytometry data analysis platform for cell-signaling applications. Researchers and collaborators from different institutions can easily and securely share raw data files, data analyses, and publication-ready figures without file size limitation concerns.

Designed for BD Phosflow Data Analyses

Originally developed by researchers from Stanford University, this software was created to meet the challenges of data analysis and data visualization of protein phosphorylation events in intact cells by flow cytometry. BD customers can take advantage of free access to Cytobank software to meet their BD™ Phosflow data analysis needs. The software package includes a gating template specifically designed for the BD Phosflow T Cell Activation Kit. Additional templates will be available as additional BD Phosflow kits are released.

Multiple Options for Publication-Ready Figure Creation and Population Statistics

Cytobank software includes multiple user-defined options for creating data figures, including heatmaps and histogram overlays with color gradient fill. Data shown within figures can be changed simply by reordering experimental variables. Correlated population statistics are automatically generated and displayed. Options for statistics include equations that are routinely used for evaluating cellular phosphorylation events.

Data Files, Illustrations, and Reports Stored and Easily Shared

Individual researchers use their own Cytobank Inbox to organize their experiments into projects. Other Cytobank users can be selected for sharing experimental data. Data illustrations and reports can be saved as PDFs and emailed to collaborators directly from Cytobank.

Visit www.cytobank.org for more information.

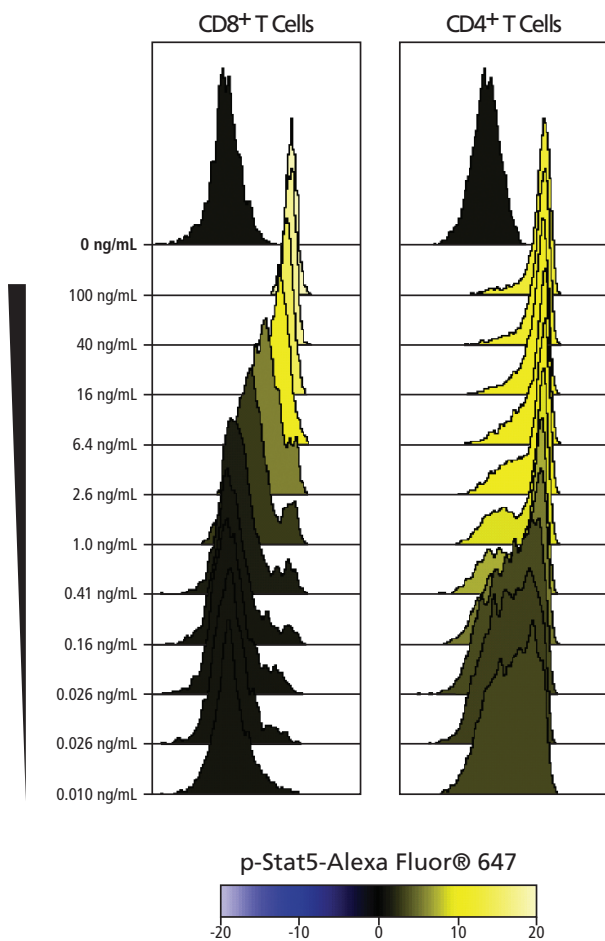


Figure 1. Histogram overlay of Stat5 (pY694) IL-2 dose response curve in human CD8⁺ and CD4⁺ T cells. T cells from human whole blood were treated with various doses for rIL-2 and processed using the BD Phosflow T Cell Activation Kit (Cat. No. 560750). Data was acquired using a BD FACSCanto™ II and plotted as histogram overlays using Cytobank software.



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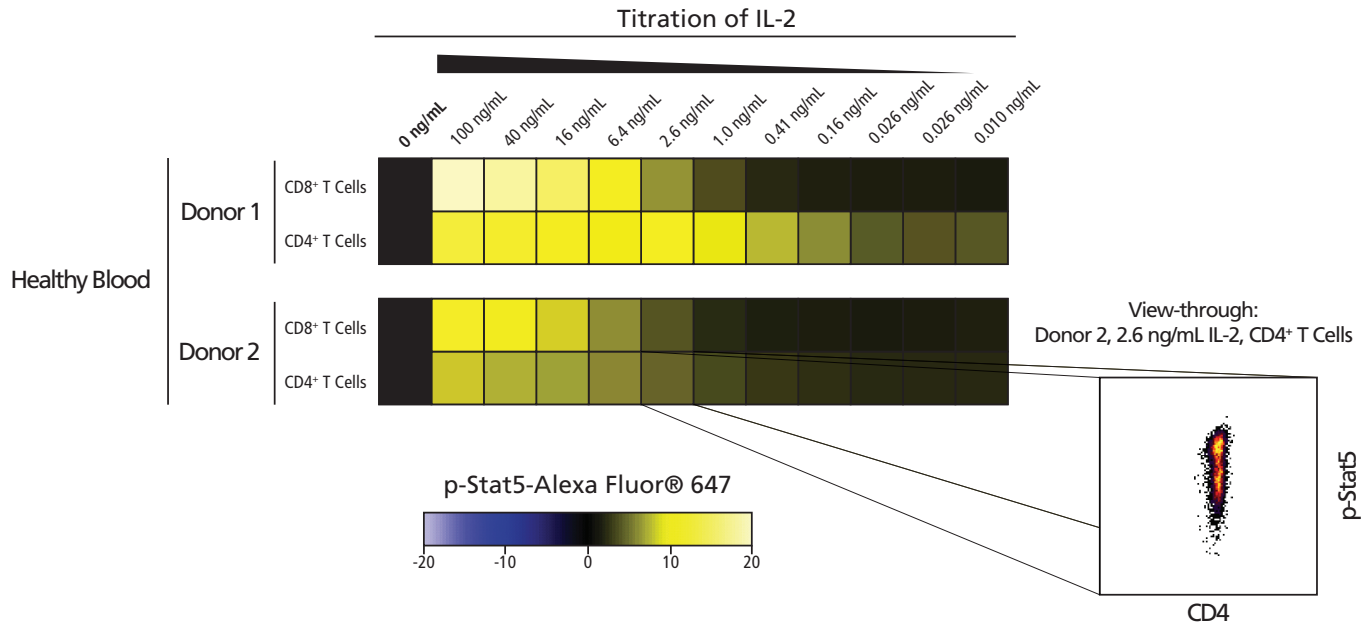


Figure 2. Heatmap display of Stat5 (pY694) IL-2 dose response curve in human CD8⁺ and CD4⁺ T cells in two donors showing a view-through density dot plot of CD4 vs pStat5. Color gradient scale represents the Fold Change statistic, ie, the ratio of the median fluorescence intensity of treated (stimulated) vs. untreated (unstimulated) cells. Note: decreases in fluorescence of treated cells (inhibition) is represented as a negative fold change (blue range of color gradient scale).

Cytobank Software is ideally suited for analysis of data generated using the BD Phosflow T Cell Activation Kit. For additional information about studying cell signaling proteins at the single-cell level, visit the BD Phosflow Cell Signaling microsite at bdbiosciences.com/research/phosflow.

Ordering Information for BD reagents used in figures 1 and 2

Description	Size	Cat. No.
BD Phosflow T Cell Activation Kit	50 tests	560750
Human CD4 and CD8 T-Cell Antibody Cocktail	50 tests	560761
Alexa Fluor® 647 Mouse anti-Stat5 (pY694)	50 tests	612599
BD Pharmingen™ Stain Buffer (FBS)	500 mL	554656
BD Phosflow Lyse/Fix Buffer (5X)	250 mL	558049
BD Phosflow Perm Buffer III	125 mL	558050
IL-2, Recombinant human	10 µg	554603



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