

Viability Dyes

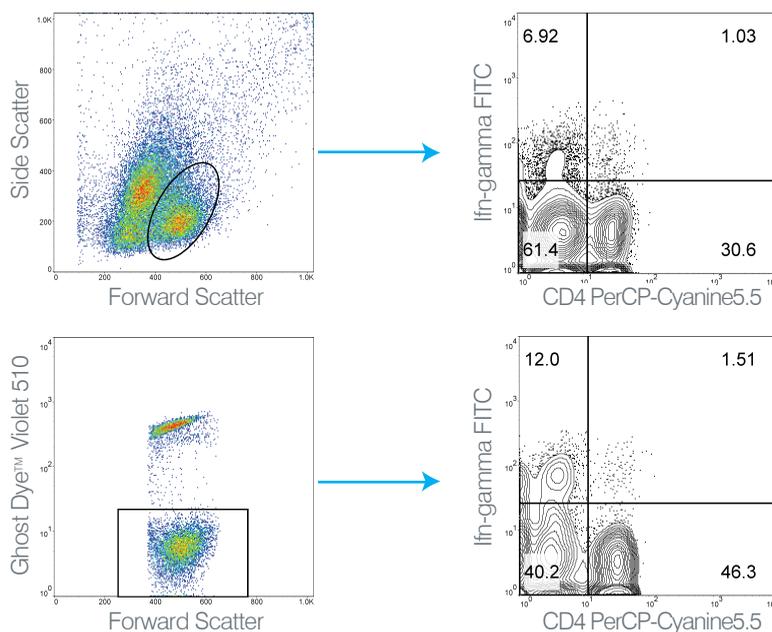
Exclude Dead Cells for Accurate Data

When dead cells are included in flow cytometry analysis, it can result in high background and non-specific staining leading to false positives. To ensure accurate data, it is crucial to exclude dead cells from your analysis. Viability dyes allow dead cells to easily be removed from analysis to improve data quality. Tonbo offers several viability dyes to ensure only live cells are analyzed in experiments.

Ghost Dyes™

- Ready-to-use format
- Easy to incorporate into staining protocols
- Resistant to subsequent washing, fixation, and permeabilization

Ghost Dyes irreversibly bind free amines available on the cell surface as well as intracellular free amines exposed in cells with compromised cell membranes. Necrotic cells with compromised membranes react with significantly more Ghost Dye than viable cells in the same sample and therefore exhibit much greater fluorescence intensity to easily allow for exclusion of these cells from analysis.



Ghost Dyes™ reduce non-specific staining and improve resolution

Mouse splenocytes were stimulated overnight with PMA and ionomycin.

Top row: Total cells were analyzed for CD4 and interferon-gamma expression based on a forward scatter vs. side scatter gate.

Bottom row: Total cells were gated on viable cells, based on Ghost Dye™ Violet 510, and subsequently analyzed for CD4 and interferon-gamma expression.

7-AAD

- Ready-to-use format

7-AAD (7-Aminoactinomycin D) is a nucleic acid dye that can be used to exclude nonviable cells from the analysis of flow cytometry data.

Propidium Iodide (PI)

- Ready-to-use format

PI is a membrane-impermeant DNA binding dye that cannot penetrate viable cells. PI rapidly enters cells with compromised membranes and intercalates between base pairs to allow for the exclusion of nonviable cells from analysis of flow cytometry data. PI has a broad emission spectrum from 535-617 nm and can be detected in either the FL2 or FL3 detector. When used with Annexin V FITC, it is recommended to analyze PI in FL2.

Viability Dyes					
Product Name	Excitation (nm)	Emission (nm)	Application	Size (Tests)	VWR Cat. No.
UV Laser					
Ghost Dye™ UV 450	355	450	FC	100T, 500T	10274-082, 10274-084
Violet Laser					
Ghost Dye™ Violet 450	405	450	FC	100T, 500T	10140-978, 10141-462
Ghost Dye™ Violet 510	405	510	FC	100T, 500T	10140-892, 10140-980
Ghost Dye™ Violet 540	405	537	FC	100T, 500T	75875-740, 75875-742
Blue Laser					
Ghost Dye™ Blue 516	488	516	FC	100T, 500T	76448-858, 76448-860
Propidium Iodide	488, 532, 561	535-617	FC	200T, 500T	10140-982, 10140-984
7-AAD	488, 532, 561	647	FC	200T, 500T	10140-986, 10140-988
Red Laser					
Ghost Dye™ Red 710	633-647	710	FC	100T, 500T	10002-364, 10002-098
Ghost Dye™ Red 780	633	780	FC	100T, 500T	10140-888, 10140-890