

Viability Dyes

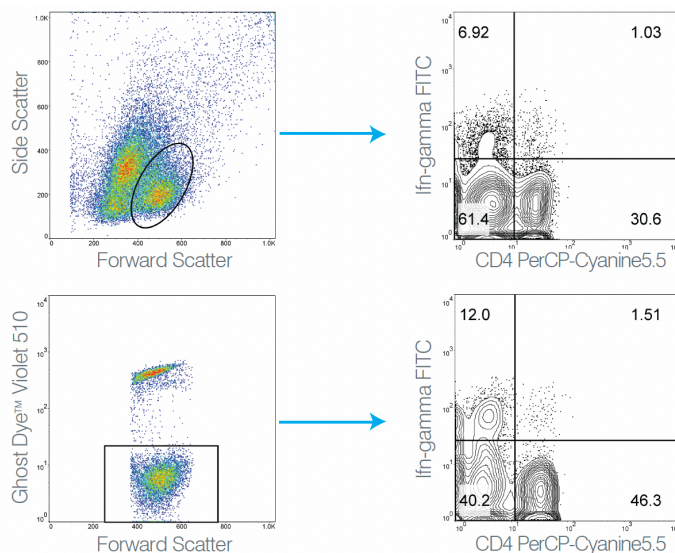
Exclude Dead Cells for Accurate Data

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. Explore our portfolio which 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.

Name	Excitation(nm)	Emission(nm)	Catalog No.	Sizes
Ghost Dye™ UV 450	355	450	13-0868	100 tests, 500 tests
Ghost Dye™ Violet 450	405	450	13-0863	100 tests, 500 tests
Ghost Dye™ Violet 510	405	510	13-0870	100 tests, 500 tests
Ghost Dye™ Violet 540	405	537	13-0879	100 tests, 500 tests
Ghost Dye™ Blue 516	488	516	13-0867	100 tests, 500 tests
Ghost Dye™ Red 710	633-647	710	13-0871	100 tests, 500 tests
Ghost Dye™ Red 780	633	780	13-0865	100 tests, 500 tests

Intracellular dyes

7-AAD (Cat. No. 13-6993)

- Ready-to-use format
- Excitation: Blue (488 nm), Green (532 nm), Yellow-Green (561 nm)
- Emission: 647 nm

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 (Cat. No. 13-6990)

- Ready-to-use format
- Excitation: Blue (488 nm), Green (532 nm), Yellow-Green (561 nm)
- Emission: 535 - 617 nm

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.

CFSE (Cat. No. 13-0850)

- Ready-to-use format
- Excitation: Blue (488 nm), Green (532 nm), Yellow-Green (561 nm)
- Emission: 535 - 617 nm