

ReadiDrop™ Cell Viability Assays

Catalog #	Description
135-1101	ReadiDrop Propidium Iodide , 3 x 3 ml
135-1102	ReadiDrop 7-AAD , 3 x 3 ml

For research purposes only.

Description

ReadiDrop Cell Viability Assays are ready-to-use solutions for assessing cell viability and for performing dead cell exclusion in flow cytometry and cell sorting applications.

These assays are based on traditional propidium iodide (PI) and 7-aminoactinomycin D (7-AAD) chemistries. PI and 7-AAD are fluorescent dyes that can permeate the compromised membranes of dead cells and intercalate nucleic acids. PI binds to DNA and RNA in a stoichiometric ratio while 7-AAD has a high affinity for GC-rich regions of double-stranded DNA (dsDNA). Upon excitation with an appropriate light source, dead cells exhibit higher fluorescence intensity than live cells, thereby enabling clear discrimination of these populations by flow cytometry (Figure 1). Dead cells can then be excluded from further analysis and also from sorted cell populations of interest.

The spectral properties of ReadiDrop Assays enable use in both single color and multicolor flow experiments. The convenient dropper bottle format removes the manual weighing, pipetting, and dilution steps required by other commonly available PI- and 7-AAD-based products.

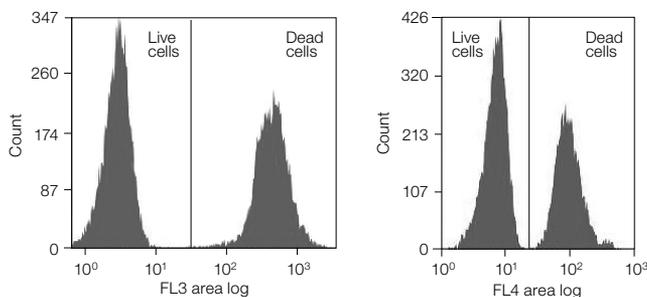


Fig.1. Easily identify dead cells in your experiment with ReadiDrop Cell Viability Assays. A mixture of live and heat-killed Jurkat cells were stained with ReadiDrop Propidium Iodide (A) or 7-AAD (B) for 1 min prior to sorting. FL, fluorescence.

Kit Contents and Storage

Kit Component	Quantity	Storage
ReadiDrop Cell Viability Assay	3 x 3 ml	Room temperature (15–30°C)

Ordering Information

Catalog Number	Description	Excitation Maximum, nm	Emission Maximum, nm	Channel (filter set) on S3e™ Cell Sorter
135-1101	ReadiDrop Propidium Iodide	535	617	FL3 (585/25)
135-1102	ReadiDrop 7-AAD	546	647	FL4 (655LP)

FL, fluorescence.

Assay Protocol

Caution: Wear gloves, safety glasses/face protection, and protective clothing to avoid direct contact of ReadiDrop solutions with skin and eyes. Refer to MSDS for more information.

1. Resuspend 1×10^6 cells in 500 μ l flow cytometry buffer (1x PBS with 3% fetal bovine serum). The cell concentration is now 2×10^6 /ml.
2. Add one to two drops of ReadiDrop Propidium Iodide or 7-AAD solution to the cell suspension.
3. Vortex briefly.
4. Incubate for 1–10 min at room temperature.

Note: Adding one drop to a 500 μ l cell suspension produces a final dye concentration of 1 μ g/ml. This is typically sufficient to stain 1×10^6 cells. If one drop is not sufficient for your cell type, adding a second drop may improve staining efficacy. When working with a larger volume of cells, scale ReadiDrop solution amount accordingly.

5. Analyze cells by flow cytometry.
 - Detect PI signal in FL3 on Bio-Rad's S3e Cell Sorter. Otherwise, select the most appropriate FL channel on your particular instrument
 - Detect 7-AAD signal in FL4 on the S3e Cell Sorter. Otherwise, select the most appropriate FL channel on your particular instrument

Visit bio-rad.com/web/readidrop2 for detailed product information, and to view the complete excitation and emission spectra for ReadiDrop Assays.