

Live-or-Dye NucFix™ Red Staining Kit

A red fluorescent dye to covalently label dead cells, allowing cells with permeable plasma membranes to be detected in flow cytometry and microscopy.



Product Description

Live-or-Dye NucFix™ Red is a red fluorescent nuclear dye that covalently labels cells with permeable plasma membranes, allowing dead cells to be detected in flow cytometry and microscopy.

About Live-or-Dye™

Biotium's line of [Live-or-Dye™ Fixable Viability Staining Kits](#) are designed for discrimination between live and dead cells during flow cytometry or microscopy. Live/dead stains are useful probes to include when analyzing cell surface protein expression by flow cytometry, because they allow intracellular fluorescence signal from dead cells with permeable plasma membranes to be excluded from analysis. In microscopy, live/dead stains allow unambiguous visual discrimination of dead cells.

NucFix™ Red

Live-or-Dye NucFix™ Red is a reactive, cell membrane impermeant dye that specifically stains the nuclei of dead cells. The dye is able to enter into dead cells that have compromised membrane integrity and covalently label the cell nucleus, allowing for clear differentiation of live and dead cells by either microscopy or flow cytometry. Unlike other commonly used nuclear stains such as Propidium Iodide (PI) or DRAQ7™, NucFix™ labeling is extremely stable, allowing the cells to be fixed and permeabilized without loss of fluorescence or dye transfer between cells. The Live-or-Dye NucFix™ Red staining protocol has been optimized to maximize live/dead discrimination with minimal live cell staining, in order to prevent interference with immunostaining.

Live-or-Dye NucFix™ Red can also be used as a fixable dead cell stain in gram-negative bacteria. In gram-positive strains there may be live cell staining. Live-or-Dye NucFix™ Red is dead cell specific but not nuclear in yeast. See our [Cellular Stains Table](#) for more information on how our dyes stain various organisms.

References

1. Cell Transplant (2019). <https://doi.org/10.1177/0963689719866685>
2. Access Microbiology (2019). <https://doi.org/10.1099/acmi.ac2019.po0242>

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Product attributes

Apoptosis/viability marker	Dead cell stain
For live or fixed cells	Covalent & fixable stains, For live/intact cells
Assay type/options	Endpoint assay
Detection method/readout	Fluorescence microscopy, Flow cytometry
Fixation options	Fix after staining (formaldehyde), Fix after staining (methanol), Permeabilize after staining
Colors	Red
Excitation/Emission	520/593 nm (with DNA)
Storage Conditions	Store at -10 to -35 °C, Protect dye component from light, Desiccate