BioVision

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For research use only

Live-Dead Cell Staining Kit

(Catalog #K501-100; 100 stainings; Store kit at –20˚C)

I. Introduction:

Distinguishing between live and dead cells is very important for investigation of growth control and cell death. The *Live-Dead Cell Staining Kit* provides the ready-to-use reagents for convenient discrimination between live and dead cells. The kit utilizes Live-Dye™, a cell-permeable green fluorescent dye (Ex/Em = 488/518 nm), to stain live cells. Dead cells can be easily stained by propidium iodide (PI), a cell non-permeable red fluorescent dye (Ex/Em = 488/615). Stained live and dead cells can be visualized by fluorescence microscopy using a band-pass filter (detects FITC and rhodamine). The kit provides sufficient reagents for 100 stainings using 24-well plate.

II. Kit Contents:

Component	K501-100	Part Number
Solution A (1 mM Live-Dye)	50 µl	K501-100-1
Solution B (1 mg/ml PI)	50 µl	K501-100-2
Staining Buffer	50 ml	K501-100-3

III. Cell Staining Protocol:

1. Prepare enough Staining Solution for your assay (0.5 ml per well in 24 well dish): mix 1 µl of Solution A and 1 µl of Solution B in 1 ml of Staining Buffer. Scale up accordingly for larger numbers of assays.
2. Collect cells (1 x 10^6cells) by centrifugation at 500 X g for 5 min.
3. Resuspend to 0.5 ml Staining Solution
4. Incubate for 15 min at 37˚C.
5. Place the cell suspension on a glass slide. Cover the cells with a glass coverslip.
   For analyzing adherent cells, grow cells directly on a coverslip. Following incubation with the Staining Solution, invert coverslip on a glass slide and visualize cells.
6. Observe cells immediately under a fluorescence microscope using a band-pass filter (detects fluorescein and rhodamine).
   Healthy cells stain only the cell-permeable Live-Dye, fluorescing green. Dead cells can stain both the cell-permeable Live-Dye and the cell non-permeable PI (red), the overlay of green and red appears to be yellow-red.

IV. Caution:

As the optimal staining conditions may vary among different cell types, we recommend that a suitable concentration of Solution A and B be determined individually.

Please note that PI is suspected to be highly carcinogenic, so careful handling of the reagent is required.

V. Storage and Stability:

Store kit at –20˚C. Protect from light. Store Staining Buffer at 4˚C after opening. All reagents are stable for 1 year under proper storage conditions.

FOR RESEARCH USE ONLY! Not to be used on humans.

RELATED PRODUCTS:

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- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System
- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence
- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

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BioVision Incorporated
155 S. Milpitas Boulevard, Milpitas, CA 95035 USA

Tel: 408-493-1800 | Fax: 408-493-1801
www.biovision.com | tech@biovision.com