

ab65470

Live and Dead Cell Staining Kit

Instructions for Use

For the rapid, sensitive and accurate detection of live and dead cells in culture (adherent and suspension)

This product is for research use only and is not intended for diagnostic use.

Table of Contents

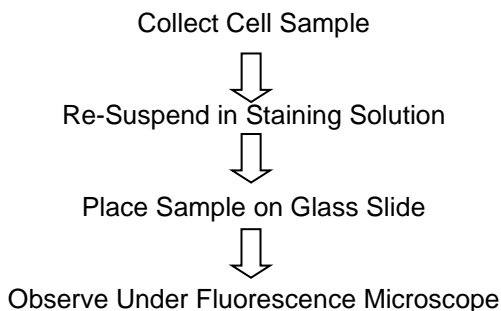
1. Overview	2
2. Protocol Summary	2
3. Components and Storage	3
4. Assay Protocol	4

1. Overview

Distinguishing between live and dead cells is very important for investigation of growth control and cell death. Abcam's Live and Dead Cell Staining Kit provides the ready-to-use reagents for convenient discrimination between live and dead cells.

The kit utilizes 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.

2. Protocol Summary



3. Components and Storage

A. Kit Components

Item	Quantity	Storage Temp (before prep)
Solution A	50 μ l	-20°C
Solution B	50 μ l	-20°C
Binding Buffer II	50 mL	-20°C or 4°C

PLEASE NOTE: Binding Buffer II was previously labelled as Staining Buffer, and Solution A as Solution A (1 mM Live-Dye), and Solution B as Solution B (1 mg/ml PI). The composition has not changed.

* All components in this kit are shipped on blue ice and are suitable for storage at -20°C, unless reconstituted. Upon receipt, immediately store kit at -20°C in the dark. Individual components may be stored at alternative temperatures as shown in the table below. Kit has a storage time of 1 year from receipt, providing components have not been reconstituted.

Please read the entire protocol before performing the assay.

B. Additional Materials Required

- Microcentrifuge
- Pipettes and pipette tips
- Fluorescence microscope
- Glass slides and coverslips
- Orbital shaker

4. Assay Protocol

1. Prepare enough Staining Solution for your assay (0.5 ml per well in 24 well dish):
Mix 1 μ l of Solution A and 1 μ l of Solution B in 1 ml of Binding Buffer II. Scale up accordingly for larger numbers of assays.
2. Collect cells (1×10^6 cells) by centrifugation at $500 \times g$ for 5 min.
3. Re-suspend 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.

Note:

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.

Notes:

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

For further technical questions please do not hesitate to contact us by email (technical@abcam.com) or phone (select “contact us” on www.abcam.com for the phone number for your region).

Technical Support

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