



## **Live-Dead Cell Staining Kit**

*Manufactured by BioVision.*

### **ALX-850-249-KI01**

~100 tests

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**For laboratory use only. Not for human or diagnostic use.**

## 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 ready-to-use staining reagents to conveniently discriminate 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 nm). 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:

Components	850-249-KI01
	100 tests
Solution A (1 mM Live-Dye™)	50 µl
Solution B (2.5 mg/ml PI)	50 µl
Staining Buffer	50 ml

## III. Double 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 number of assays.
2. Collect cells ( $1 \times 10^6$  cells) by centrifugation at 500 x g for 5 min.
3. Resuspend to 0.5 ml Staining Solution.
4. Incubate for 15 minutes 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 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.