

Product datasheet

Live and Dead Cell Assay ab115347

34 References 4 Images

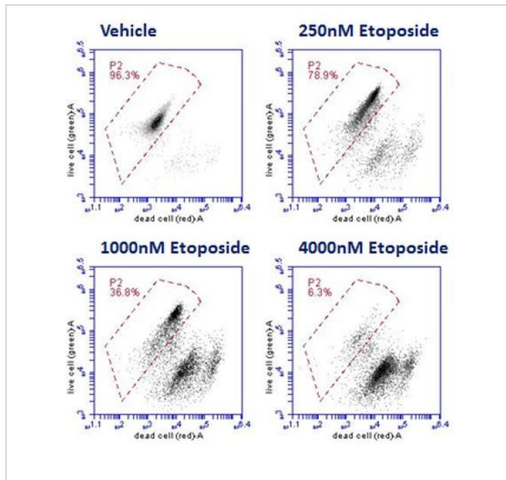
Overview

Product name	Live and Dead Cell Assay
Detection method	Fluorescent
Product overview	<p>Live Dead Assay Kit ab115347 differentially labels live and dead cells with fluorescent dyes with a one-step live dead assay protocol. It is used for the rapid quantitation of cell viability using flow cytometry or fluorescent microscopy.</p> <p>The Live Dead assay staining solution is a mixture of two fluorescent dyes that differentially label live and dead cells.</p> <p>The Live cell dye labels intact, viable cells green. It is membrane permeant and non-fluorescent until ubiquitous intracellular esterases remove ester groups and render the molecule fluorescent. The Excitation (max) and Emission(max) are 494nm and 515nm (similar to FITC).</p> <p>The Dead cell dye labels cells with compromised plasma membranes red. It is membrane-impermeant and binds to DNA with high affinity. Once bound to DNA, the fluorescence increases >30-fold. The Excitation (max) and Emission(max) are 528nm and 617nm.</p> <p>The Live Dead assay protocol uses a one-step staining procedure that is simple and fast. It can be used directly in cell culture media.</p>
Notes	<p>This assay is not suitable for use with fixed cells / cell fixation.</p> <p>The Live Dead assay staining solution provided is sufficient for ~1000 assays.</p> <p>Related assays</p> <p>Review the cell health assay guide to learn about kits to perform a cell viability assay, cytotoxicity assay and cell proliferation assay.</p>
Platform	Flow cytometer, Fluorescence microscope
Properties	
Storage instructions	Store at -20°C. Please refer to protocols.

Components	1000 tests
1000X Live/Dead Cell stain in DMSO	1 x 0.1ml

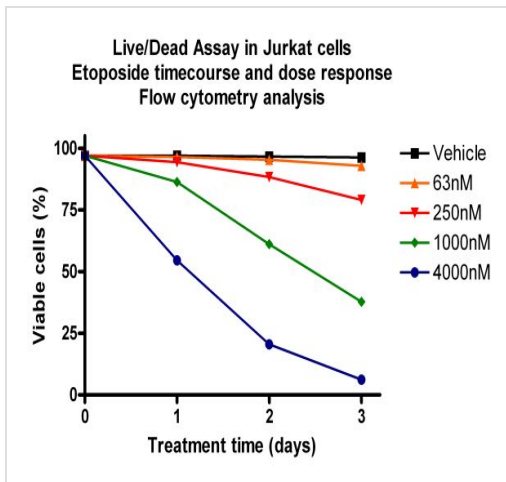
Relevance Distinguishing between live and dead cells is very important for investigation of growth control and cell death.

Images



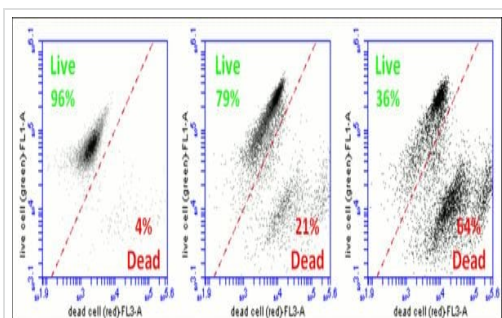
Dot plots showing live/dead analysis of vehicle or drug treated Jurkat cells (day 3 of treatment). The indicated drug is used to induce cell death. Live cells are on the y-axis and dead cells are on the x-axis. The red polygongate identifies live cells and the number indicates the percent of live cells.

Functional Studies - Live and Dead Cell Assay (ab115347)



Quantification of % viable cells of Jurkat cells treated with a dose response of the indicated drug (to induce cell death) and analyzed using the live/dead assay stain on days 1, 2 and 3 using flow cytometry.

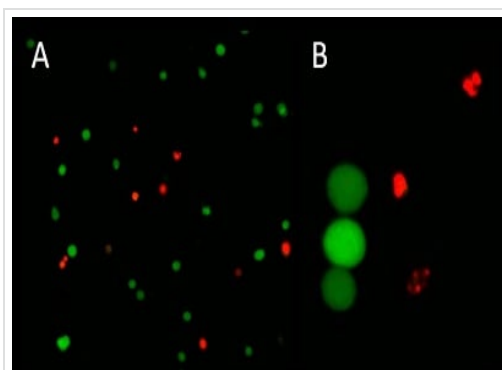
Functional Studies - Live/Dead Cell Assay (ab115347)



Functional Studies - Live/Dead Cell Assay

(ab115347)

The sample dot plots demonstrate varying ratios of live and dead cells. More green = upper left = live cells; more red = lower right = dead cells.



Functional Studies - Live/Dead Cell Assay

(ab115347)

Jurkat cells stained with the live/dead assay kit. Jurkat cells treated with a drug to induce cell death were labeled with the live/dead assay stain. Live cells (with esterase activity) stain green and dead cells (compromised plasma membrane) stain red. (A) Field of cells following 10 minute staining in media of live/dead stain. (B) Magnified view showing that in live cells the whole cell is stained green whereas in dead red cells it is the fragmented nuclear DNA that is stained.

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