# Acridine Orange/ Propidium Iodide Stain

F23001

## Storage

4 °C in the dark



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**Product Description** 

Appearance Orange-red liquid
Cell permeability Membrane perme

Membrane permeable (acridine orange)
Membrane impermeant (propidium iodide)

Excitation/emission 500/526 nm (acridine orange)

533/617 nm (propidium iodide)

Acridine Orange/Propidium lodide Stain is a cell viability dye that causes viable nucleated cells to fluoresce green and nonviable nucleated cells to fluoresce red. Acridine Orange/Propidium lodide Stain can be used to assess cell viability with the automated fluorescence cell counters of the LUNA $^{\rm m}$  family.

Acridine orange permeates viable cells and binds to nucleic acids. Binding to dsDNA causes acridine orange to fluoresce green and binding to ssDNA or RNA causes it to fluoresce red.

Propidium iodide binds to nucleic acids. Not being able to permeate intact cell membranes, propidium iodide is taken up by nonviable cells and cells with compromised membranes. Once bound to nucleic acids, its fluorescence increases 20-30 fold and causes the cell to fluoresce red. Due to Förster resonance energy transfer (FRET), the propidium iodide signal absorbs the actidine orange signal in nonviable cells, ensuring no double positive results.

## **Directions for Use**

1. Mix:

2 µL Acridine Orange/Propidium Iodide Stain 18 µL cell sample

Count the sample with a compatible LUNA™.

## Disclaimer

This product is for research use only.

Please consult the material safety data sheet for information regarding hazards and safe handling practices.

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