

Product Information

ViaVac Red/Green, 10 mM in DMSO

Catalog Number: 29068

Unit Size: 100 µL

Storage and Handling

Store at -20°C, protected from light. Product is stable for at least 12 months from date of receipt when stored as recommended.

Spectral Properties

Ex/Em: ~485/530 (green); ~485/620 (red)

Product Description

ViaVac Red/Green is a fluorescent viability dye for yeast, identical in structure to the dye FUN® 1. ViaVac passively diffuses into cells, showing green cytoplasmic staining. In many species of yeast and fungi, in metabolically active cells the dye is actively transported into the vacuole, resulting in red fluorescent staining of tubular intravacuolar structures.

ViaVac Red/Green is also sold together with Calcofluor White as part of the Yeast Vitality Staining Kit (31062).

Protocol for staining cells in liquid culture

This staining protocol was optimized using *Saccharomyces cerevisiae* yeast in pure culture. The optimal dye concentration may need to be determined experimentally for other organisms.

1. Culture cells in the appropriate growth medium. Spin down and resuspend in a clear buffer suitable for imaging, such as PBS or HBSS.

Note: ViaVac staining does not work well in media such as YPD or SC.

2. Add dye directly to cells in buffer, at a final concentration of 1-10 µM.

Note: If costains are to be performed, ViaVac may interact with the other dye(s), inhibiting staining. We recommend doing sequential stains, with ViaVac being applied first.

3. Incubate for 20 min at room temperature or 30°C, rocking, protected from light. Optional: wash once before imaging.

4. Image on a fluorescence microscope using a Texas Red® or similar emission filter to visualize the red intravacuolar tubules, and a FITC emission filter to visualize green cytoplasmic staining.

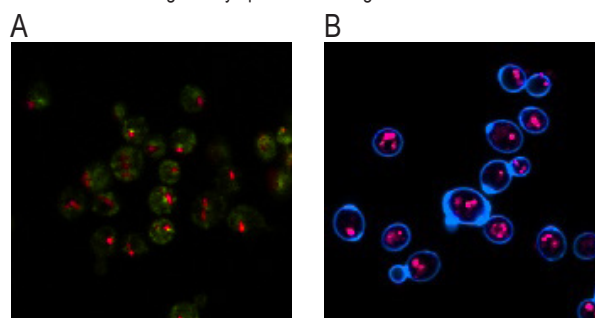


Figure 1. A) *Saccharomyces cerevisiae* stained with 10 µM ViaVac Red/Green in HBSS for 20 minutes, then imaged on a Zeiss LSM700 confocal microscope using FITC and Texas Red® imaging settings. B) *Saccharomyces cerevisiae* stained sequentially with 1 µM ViaVac Red/Green and 25 µM Calcofluor White in PBS, 20 minutes. Imaged on a Zeiss LSM700 confocal microscope using DAPI and Texas Red® imaging settings.

Related Products

Catalog number	Product	Function
29067	Calcofluor White, 5 mM in water	Cell wall/bud scar stain
40077	Thiazole Orange, 10 mM in DMSO	Live cell fixable cytoplasmic stain
31062	Yeast Vitality Staining Kit	Calcofluor White to stain the cell wall, ViaVac Red/Green as a vital dye
31063	Yeast Viability Staining Kit	ConA to stain cell walls, Live-or-Dye to stain dead cells
31064	Yeast Fixable Live/Dead Staining Kit	Thiazole Orange to stain all cells, Live-or-Dye to stain dead cells
29015-29020; 29058	CF™ Dye Concanavalin A (Con A)	Cell wall stain in a variety of dye conjugates
29021-29029; 29059; 29064	CF™ Dye Wheat Germ Agglutinin (WGA)	Cell wall bud scar stain in a variety of dye conjugates
32002-32009	Live-or-Dye Fixable Viability Staining Kits	Dead-cell-specific viability stains in a variety of dye colors
23001	EverBrite™ Mounting Medium	Wet set mounting medium for microscopy
23002	EverBrite™ Mounting Medium with DAPI	Wet set mounting medium for microscopy containing DAPI

Please visit our website at www.biotium.com for information on our life science research products, including fluorescent CF™ dye antibody conjugates and reactive dyes, apoptosis reagents, fluorescent probes, and kits for cell biology research.

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