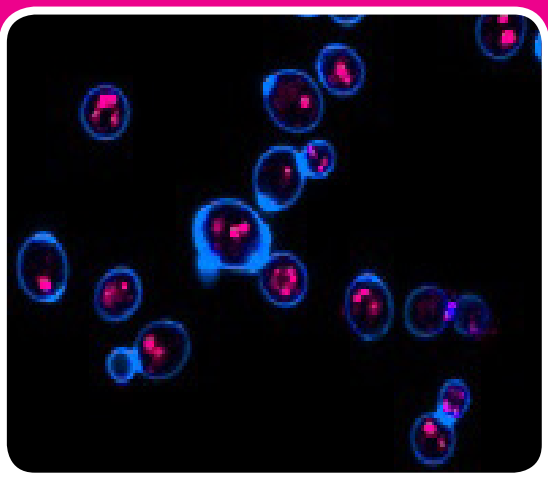

Yeast stains

Fluorescent dyes and kits

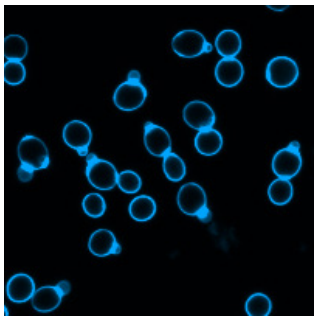

Figure 1. Saccharomyces cerevisiae stained with Calcofluor White.

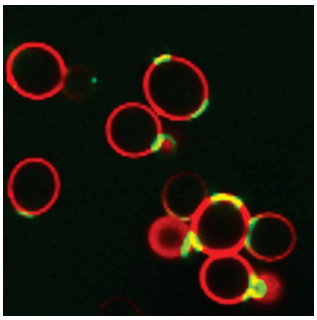

Figure 2. Saccharomyces cerevisiae stained with CF®594-ConA (red) and CF®488A-WGA (green).

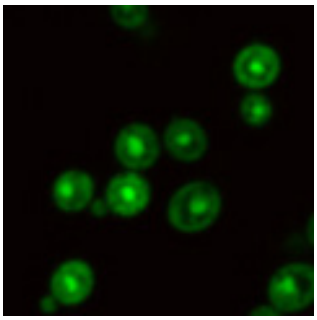

Figure 3. Saccharomyces cerevisiae stained with Thiazole Orange.

General Yeast Stains

If you are looking for a simple dye to stain yeast or fungi, we've got you covered. With many colors and localizations to choose from, you're sure to find a dye to fit your needs.

- Calcofluor White: A classic blue dye that binds to cellulose and chitin in the cell walls of yeast, fungi, algae and plants (Figure 1).
- Concanavalin A (ConA): A widely used lectin that binds to a-mannopyranosyl and a-glucopyranosy residues found in the cell wall of yeast and fungi. Comes in your choice of 7 bright and photostable CF® dye conjugates (Figure 2).
- Wheat Germ Agglutinin (WGA): A lectin with high affinity for sialic acid and N-acetylglucosamine, strongly stains the bud scars in budding yeast. Comes in your choice of 11 bright CF® dye conjugates (Figure 2).
- Thiazole Orange: A fixable green dye that stains yeast with a cytoplasmic/nuclear localization. Staining pattern becomes diffuse after fixation (Figure 3).
- ViaFluor® CFSE: Fluorogenic green dye, hydrolyzed by cytoplasmic esterase enzymes to releases the amine-reactive dye carboxy-fluorescein SE.

Organelle stains

For labeling of subcellular organelles, Biotium offers several trademark dyes in various colors, such as MitoView™ and LysoView™. Also see our website for other classical mitochondria and membrane dyes.

- MitoView™ 633: membrane potential-dependent mitochondrial dye, validated for mitochondrial staining in *Saccharomyces cerevisiae*.
- LysoView™ 633, LysoView™ 540 and Light-On LysoView™ 555: validated for staining in *Saccharomyces cerevisiae*, accumulate in the yeast vacuole.

Ordering Information

Cat. #	Product	Description
29067	Calcofluor White, 5 mM in Water	Blue cell wall/bud scar stain
29015-29020; 29058	CF® Dye Concanavalin A (ConA)	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
40077	Thiazole Orange, 10 mM in DMSO	Fixable green cytoplasmic/nuclear stain
30050	ViaFluor® CFSE Cell Proliferation Kit	Fixable green cytoplasmic stain
70055	MitoView™ 633	Membrane potential-dependent mitochondrial stain
70061	LysoView™ 540	Lysosome/vacuole stain
70058	LysoView™ 633	Lysosome/vacuole stain
70060	Light-On LysoView™ 555	UV-activated lysosome/vacuole stain

Biotium

Viability dyes and kits

It is often useful to distinguish live cells from dead, or identify cells that are metabolically active. Our large selection of yeast viability dyes and kits can help.

- Live-or-Dye™ Fixable Viability Staining Kits: Fixable and dead-cell-specific. Good for flow cytometry and microscopy. Available in 9 bright, photostable colors. Note: the NucFix™ Red variation is not nucleus-specific in yeast.
- ViaVac™ Red/Green: A vacuolar cell vitality dye. Passively diffuses into cells and gives a nonspecific green staining pattern. In metabolically active yeast, the dye is actively transported into the vacuole where it stains intravacuolar tubules bright red.

Combination Staining Kits

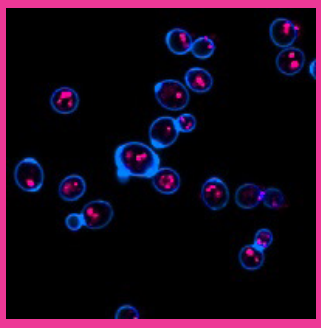

Figure 4. Yeast Vitality Staining Kit, ViaVac™ Red/Green (red) and Calcofluor White (blue).

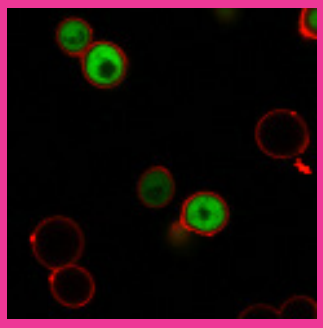

Figure 5. Yeast Viability Staining Kit, CF®-ConA (red) and Live-or-Dye™ (green).

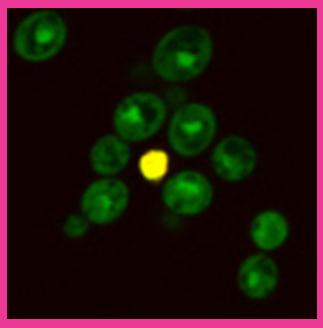

Figure 6. Yeast Fixable Live/Dead Staining Kit, Thiazole Orange (green) and Live-or-Dye™ 568/583 (red).

PMA for Viability PCR

Viability PCR using PMA dye is a fast, quantitative alternative to traditional culturing methods for determining cell viability. In a sample treated with PMA, the dye enters only into dead cells and binds to the DNA. Upon photoactivation, the dye becomes covalently attached to the dead cell's DNA. When the DNA from the sample is analyzed by qPCR, amplification of the dead cell DNA will be inhibited by the dye, allowing viability to be quantified (Figure 8).

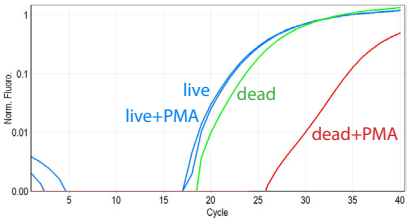

Figure 8. Viability qPCR of live or heat-killed yeast, *S. cerevisiae*. Live cells +/- 200 uM PMA (blue), untreated dead cells (green), dead cells treated with PMA (red).

Ordering Information

Cat. #	Product	Description
32002-32009	Live-or-Dye™ Fixable Viability Kits	Dead cell specific stains in a variety of colors
29068	ViaVac™ Red/Green, 10 mM in DMSO	Yeast vital dye
31062	Yeast Vitality Staining Kit	ViaVac Red/Green and Calcofluor White
31063	Yeast Viability Staining Kit	CF-ConA and Live-or-Dye™ combinations
31064	Yeast Fixable Live/Dead Staining Kit	Thiazole Orange and Live-or-Dye™ 568/583
40019	PMA dye, 20 mM in water	Viability determination by qPCR
E90002	PMA-Lite™	Light box for photolysis of PMA

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