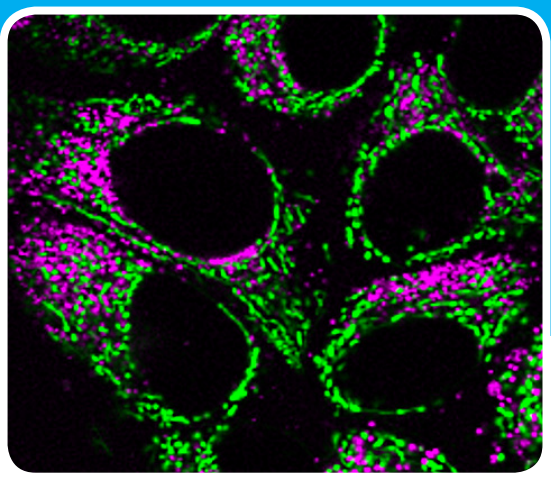


MitoView™ & LysoView™ Dyes

Live & fixed cell organelle stains

Features

- Highly specific, no-wash staining of mitochondria
- Potential-dependent MitoView™ 633 for the Cy®3 or Cy®5 channel
- MitoView™ 405 for the 405 nm laser
- MitoView™ 720 for the Cy®7 channel
- Potential-independent, fixable MitoView™ Green

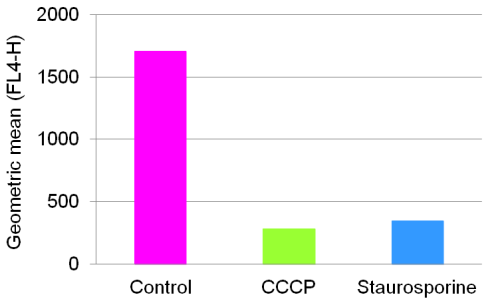
MitoView™ fluorescent mitochondrial dyes

Loss of mitochondrial membrane potential is a hallmark of apoptosis. Far-red MitoView™ 633 dye has been reported to exhibit a rapid responses to mitochondrial membrane potential loss. MitoView™ 633 is optimally detected in the Cy®5 channel, but also emits visible red fluorescence in the Cy®3 channel.

MitoView™ 405 and MitoView™ 720 are partially membrane potential-dependent; upon depolarization the dyes relocalize to the cytoplasm but retain fluorescence.

MitoView™ Green is a mitochondrial membrane potential-independent dye. MitoView™ Green can be used to stain mitochondria in live cells before or after mitochondrial depolarization or formaldehyde fixation.

Figure 1. Flow cytometry analysis of Jurkat cells treated with CCCP to depolarize the mitochondrial membrane or staurosporine to induce apoptosis, resulting in decreased MitoView™ 633 staining.



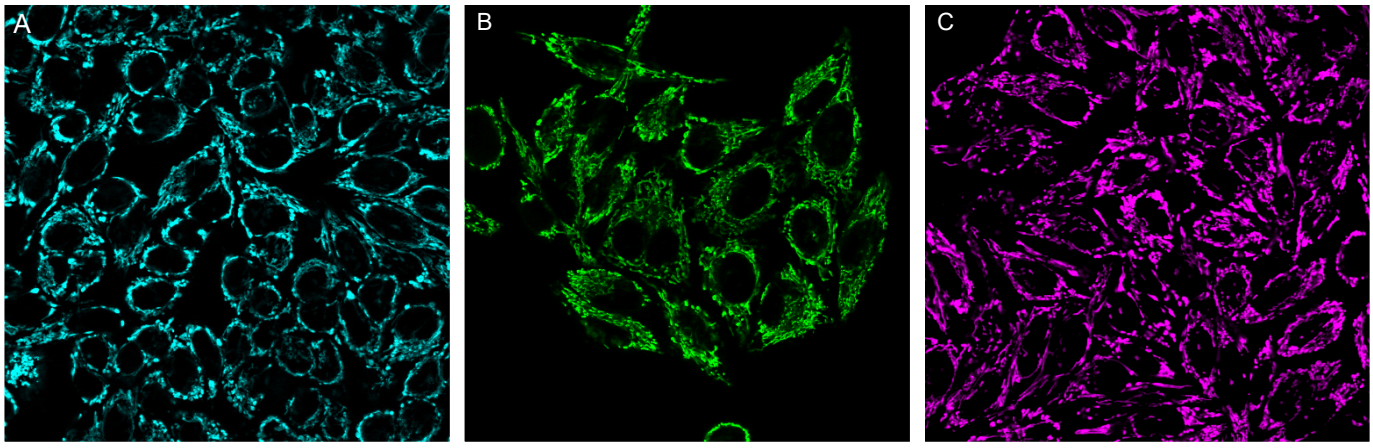


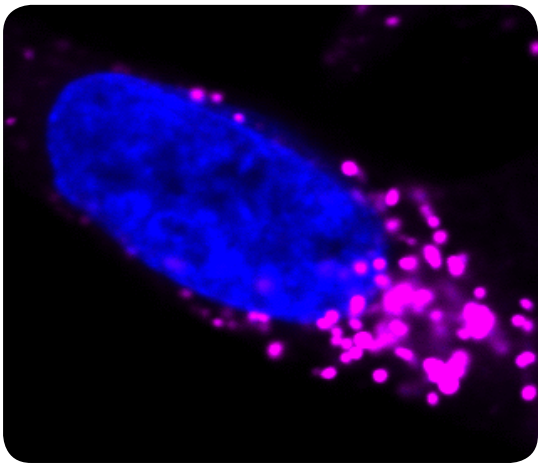
Figure 2. Live HeLa cells stained with (A) MitoView™ 405, (B) MitoView™ Green, or (C) MitoView™ 633.

Ordering Information

Cat. #	Description	Ex/Em	Size
70070-T	MitoView™ 405	398/440 nm	50 ug
70070			20 x 50 ug
70054-T	MitoView™ Green	490/523 nm	50 ug
70054			20 x 50 ug
70055-T	MitoView™ 633	622/648 nm	50 ug
70055			20 x 50 ug
70068-T	MitoView™ 720	720/758 nm	50 ug
70068			20 x 50 ug

Biotium

LysoView™ fluorescent lysosome dyes



LysoView™ dyes are fluorescent stains for imaging lysosome localization and morphology in live cells. LysoView™ dyes belong to a family of lysosomotropic dyes that contain weakly basic amines that accumulate in acidic organelles. LysoView™ dye fluorescence is also pH-sensitive, resulting in specific lysosomal staining without a wash step (Figures 1 and 2). We offer LysoView™ dyes in four colors, for every common microscopy filter set.

Biotium also offers Light-On LysoView™ 555, a UV-activatable lysosome stain. In cells, the dye initially shows low fluorescence, but brief exposure to UV excitation from a mercury arc lamp activates bright red fluorescence localizing to lysosomes (Figure 3). The fluorescence fades after several minutes, but can be re-activated in the same cells multiple times by exposure to UV light, providing a novel tool for reversible induction of fluorescence in lysosomes.

Features

- Fluorescent dyes for imaging lysosomes in live cells
- Highly specific, no-wash staining of acidic organelles
- LysoView™ 405 for the DAPI channel
- LysoView™ 488 for the FITC channel
- Red fluorescent LysoView™ 540 for the Cy®3 channel
- Far-red fluorescent LysoView™ 633 for the Cy®5 channel
- Unique, UV-activated Light-On LysoView™ 555

LysoView™ 540

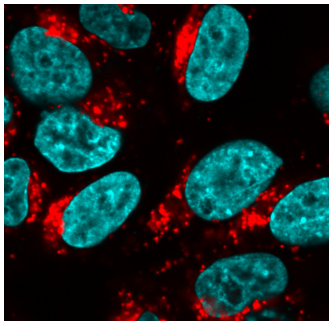


Figure 1. HeLa cells stained with LysoView™ 540 (red). Nuclei are stained with Hoechst 33342 (blue, cat. # 40046).

LysoView™ 633 compared to LysoTracker® Deep Red

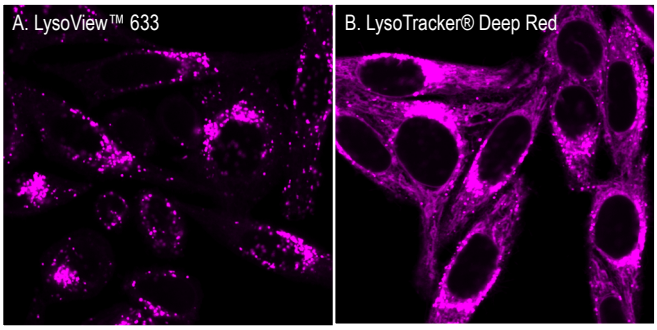


Figure 2. LysoView™ 633 (A) shows more specific punctate lysosomal staining with less cytoplasmic staining compared to LysoTracker® Deep Red (B).

Light-On LysoView™ 555

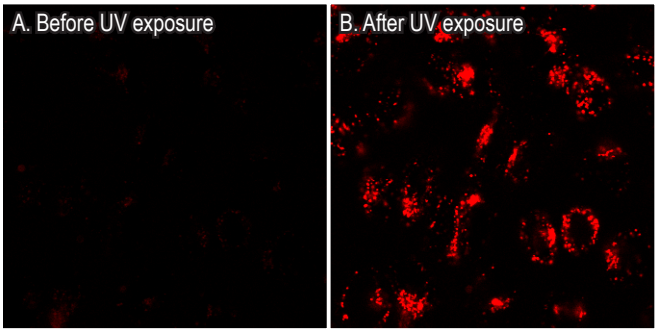


Figure 3. UV-activated lysosomal fluorescence with Light-On LysoView™ 555. A. Before UV exposure, fluorescence is not detectable. B. Five seconds of exposure to UV light from a short arc lamp activates bright lysosomal fluorescence.

Ordering Information

Cat. #	Description	Ex/Em	Size
70066-T	LysoView™ 405, 1000X in DMSO	318, 400/464 nm	10 uL
70066			50 uL
70067-T	LysoView™ 488, 1000X in DMSO	506/532 nm	10 uL
70067			50 uL
70061-T	LysoView™ 540, 1000X in DMSO	541/634 nm	10 uL
70061			50 uL
70058-T	LysoView™ 633 (each vial yields 100 uL of 100X dye in water after reconstitution)	634/659 nm	1 vial
70058			10 vials
70060-T	Light-On LysoView™ 555, 1000X in DMSO	554/583 nm	10 uL
70060			50 uL

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