

# Product Information

## LysoView™ Dyes

Product	Catalog no.	Size
LysoView™ 405, 1000X in DMSO	70066-T	10 uL
	70066	50 uL
LysoView™ 488, 1000X in DMSO	70067-T	10 uL
	70067	50 uL
LysoView™ 540, 1000X in DMSO	70061-T	10 uL
	70061	50 uL
LysoView™ 633 (lyophilized solid)	70058-T	1 vial*
	70058	10 vials*
LysoView™ 650, 1000X in DMSO	70059-T	10 uL
	70059	50 uL

\*One vial of LysoView™ 633 yields 100 uL of 1000X dye stock solution after reconstitution (see below).

### Storage and Handling

Store at -20°C and protect from light. Product is stable for at least 12 months from date of receipt when stored as recommended. Before use, centrifuge vials briefly to collect the contents at the bottom of the vial.

### Reconstitution (LysoView™ 633 only)

To prepare LysoView™ 633, 1000X stock solution in water: Briefly centrifuge vial to collect any loose material from cap before opening. Add 100 uL dH<sub>2</sub>O to one vial of lyophilized dye and vortex to mix. Stock solution is stable for at least 2 weeks when stored at -20°C, protected from light.

### Spectral Properties

Component	Abs/Em	Detection channel
LysoView™ 405, 1000X in DMSO	318, 400/464 nm	DAPI
LysoView™ 488, 1000X in DMSO	496/526 nm	GFP, FITC
LysoView™ 540, 1000X in DMSO	541/634 nm (pH ≤5)	Rhodamine, Cy@3
LysoView™ 633 (lyophilized solid)	634/659 nm (pH ≤5)	Cy@5
LysoView™ 650, 1000X in DMSO	650/675 nm	Cy@5

See absorbance and emission spectra on page 2.

### Product Description

LysoView™ dyes are fluorescent stains for imaging lysosome localization and morphology in live cells. The dyes accumulate in the low pH environment of the lysosomes, resulting in highly specific lysosomal staining without the need for a wash step. In addition, LysoView™ 540 and LysoView™ 633 exhibit pH-sensitive fluorescence (Figs. 3-4), further enhancing the specificity of staining.

LysoView™ dyes are available with blue, green, visible red, and far-red fluorescence for flexibility in multi-color imaging. The LysoView™ 650 fluorophore is compatible with super-resolution imaging by SIM and STED.

Biotium also offers the unique lysosome stain Light-On LysoView™ 555, which has fluorescence that is reversibly activated by exposure to UV light (see related products).

### Staining Protocol

- For LysoView™ 633 only, prepare 1000X stock solution in water as described under Reconstitution. Other LysoView™ dyes are supplied as 1000X stock solutions in DMSO.
- Dilute 1000X LysoView™ stock solution in cell culture medium to a final concentration of 1X.  
  
Note: We recommend using 1X dye as a starting point for optimization. Higher or lower concentrations may be optimal for different imaging systems or cell types.
- Incubate live cells with medium containing 1X LysoView™ for 15-30 minutes at 37°C.  
  
Note: Staining time can be varied depending on cell type and application. In our tests, cells showed no obvious signs of toxicity after 72 hours of incubation with LysoView™ dyes, but toxicity may vary by cell type. Staining may diminish after prolonged incubation (longer than 24 hours).
- Image cells using the appropriate excitation/emission settings or detection channel (see Spectral Properties). No wash step is required before imaging.  
  
Note: LysoView™ dyes are recommended for live cell imaging only. Staining is not well-retained after fixation with formaldehyde, which results in increased cytoplasmic staining.

### Related Products

Catalog number	Product
70060	Light-On LysoView™ 555
70052	MitoView™ Blue
70054	MitoView™ Green
70055	MitoView™ 633
70068	MitoView™ 700
40081	NucSpot™ Live 488 Nuclear Stain
40082	NucSpot™ Live 650 Nuclear Stain
40060	RedDot™ 1 far-red nuclear stain for live cells
40061	RedDot™ 2 far-red nuclear stain for dead or fixed cells
70064	ViaFluor™ 405 Live Cell Microtubule Stain
70062	ViaFluor™ 488 Live Cell Microtubule Stain
70063	ViaFluor™ 647 Live Cell Microtubule Stain
30088	CellBrite™ Fix 555 Membrane Stain
30089	CellBrite™ Fix 640 Membrane Stain
70065	LipidSpot™ 488 Lipid Droplet Stain
70069	LipidSpot™ 610 Lipid Droplet Stain

Please visit our website at [www.biotium.com](http://www.biotium.com) for information on our life science research products, including fluorescent CF™ dye conjugates of transferrin, cholera toxin subunit B, dextrans, lectins, and Annexin V for cellular imaging, plus many more fluorescent probes and kits for cellular and molecular biology research.

Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use.

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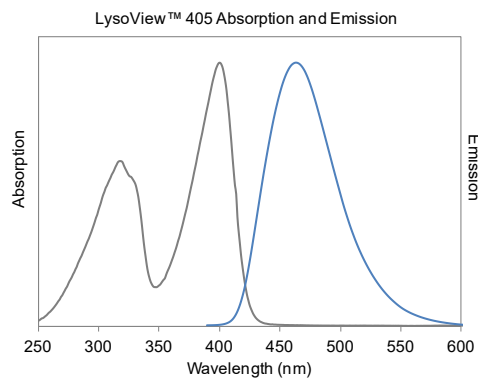


Figure 1. Normalized absorption and emission of LysoView™ 405.

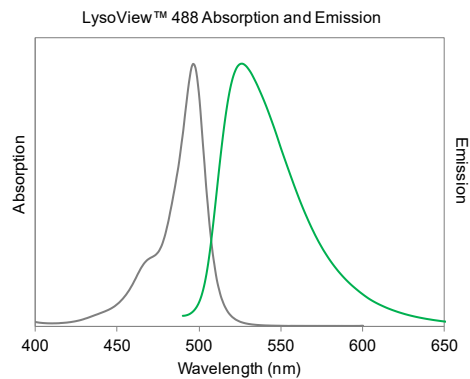


Figure 2. Normalized absorption and emission of LysoView™ 488.

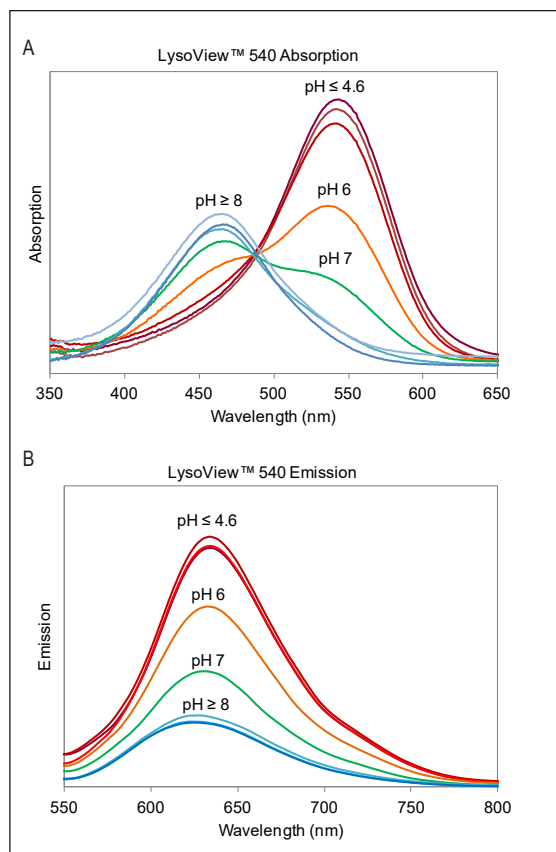


Figure 3. LysoView™ 540 normalized absorption (A) and emission (B) at varying pH.

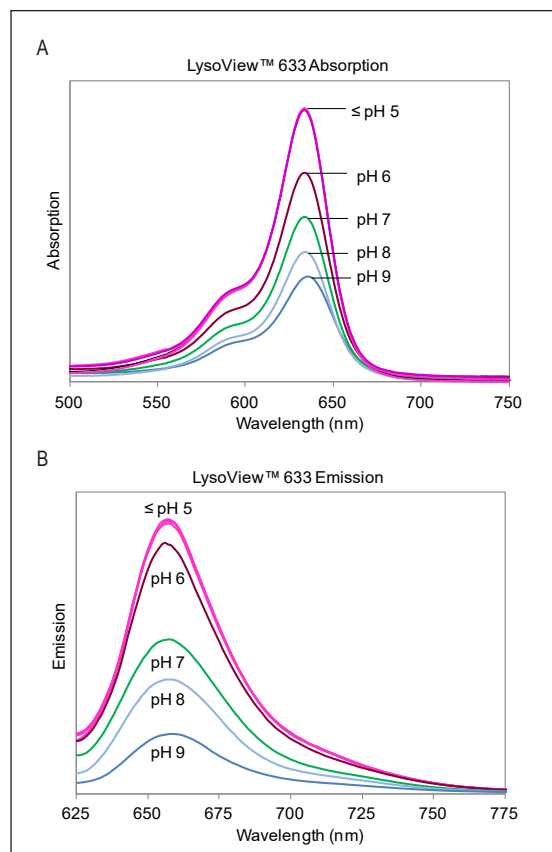


Figure 4. LysoView™ 633 normalized absorption (A) and emission (B) at varying pH.

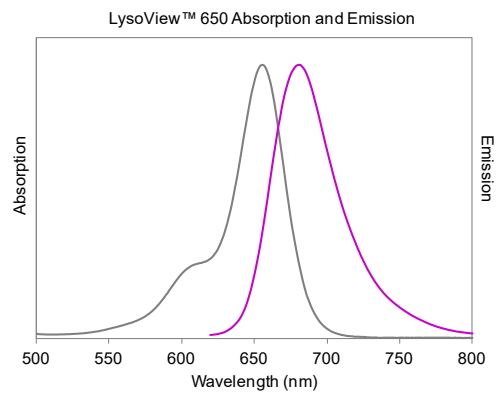


Figure 5. Normalized absorption and emission of LysoView™ 650.