

NEW!

TrueBlack™ Lipofuscin Autofluorescence Quencher

Lipofuscin granules accumulate in cells with age and are highly autofluorescent, making fluorescence imaging of tissues from adult human and aged animal specimens all but impossible. Sudan Black B can be used to mask lipofuscin, but it also introduces high non-specific background fluorescence in the red and far-red channels, limiting their use. Now Biotium has developed TrueBlack™ as a superior alternative to Sudan Black B. TrueBlack™ quenches lipofuscin fluorescence with minimal background fluorescence, for excellent signal-to-noise in immunofluorescence.

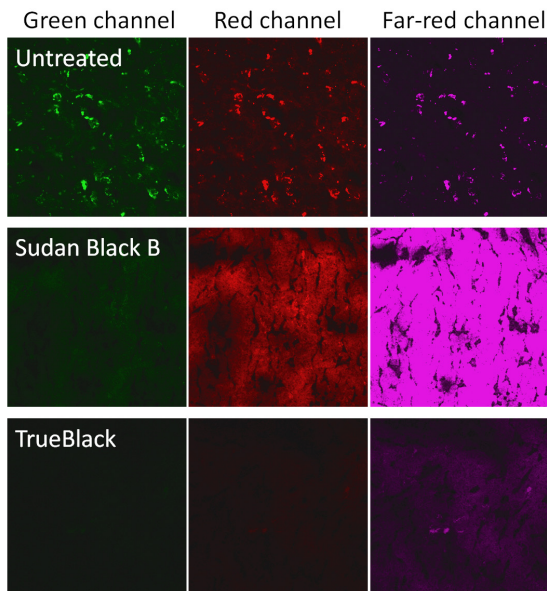


Figure 1. TrueBlack quenches lipofuscin with less red and far-red background than Sudan Black B in human cerebral cortex sections. Top row: lipofuscin appears as highly fluorescent granules throughout the tissue section in all three fluorescent channels. Middle row: Sudan Black B masks lipofuscin autofluorescence, but causes high background in the red and far-red channels. Bottom row: TrueBlack quenches lipofuscin with minimal increase in fluorescence background (bottom row). Samples were imaged at the same gain settings on a Zeiss LSM 700 confocal microscope in the FITC (green), Cy3 (red), and Cy5 (far-red) channels.

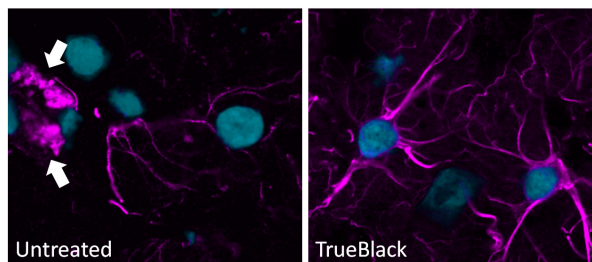


Figure 2. Immunofluorescence staining with and without TrueBlack treatment. Human cerebral cortex sections were stained with rabbit anti-GFAP followed by CF640R goat anti-rabbit and DAPI. Sections were left untreated or treated with TrueBlack, then mounted in EverBrite mounting medium. Untreated sections (left) showed lipofuscin autofluorescence (white arrows) in addition to staining for GFAP (glial processes, magenta) and DAPI (nuclei, blue). TrueBlack (right) eliminated lipofuscin fluorescence while maintaining highly specific staining for GFAP (magenta) in the far-red (Cy5) channel.

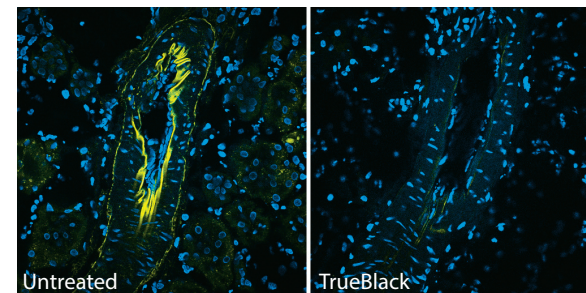


Figure 3. TrueBlack can reduce autofluorescence from non-lipofuscin sources. Unstained sections of rat kidney were left untreated (left) or treated with TrueBlack (right). TrueBlack treatment reduced autofluorescence of extracellular matrix (green). Sections were mounted in EverBrite Mounting Medium with DAPI to counterstain nuclei (blue).

TrueBlack™ Features

- Eliminates lipofuscin autofluorescence
- Reduces autofluorescence from other sources, like red blood cells and extracellular matrix
- Less red/far-red background than Sudan Black B
- Can be used before or after immunostaining
- Clears the way for multi-color imaging in human tissue

Ordering information

Cat.#	Product Name	Size
23007	TrueBlack™ Lipofuscin Autofluorescence Quencher, 20X in DMF	1 mL

More immunofluorescence essentials from Biotium

Cat.#	Product Name
40061	RedDot™2 Far Red Nuclear Counterstain
80027	PathoGreen™ Histofluorescent Stain
23001	EverBrite™ Mounting Medium
23002	EverBrite™ Mounting Medium with DAPI
23003	EverBrite™ Hardset Mounting Medium
23004	EverBrite™ Hardset Mounting Medium with DAPI
23005	CoverGrip™ Coverslip Sealant
22005	Mini Super ^{HT} Pap Pen 2.5 mm tip
22006	Super ^{HT} Pap Pen 4 mm tip
22015	Fixation Buffer
22016	Permeabilization Buffer
22017	Permeabilization and Blocking Buffer
22010	10X Fish Gelatin Blocking Agent

Visit www.biotium.com to find more tools for fluorescence imaging featuring our bright and photostable CF™ dyes, including primary and secondary antibodies, Mix-n-Stain™ antibody labeling kits, phalloidins, and other conjugates.