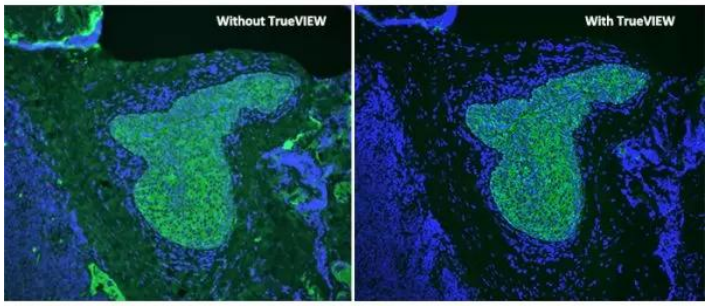
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

VECTOR TRUEVIEW AUTOFLUORESCENCE QUENCHING KIT WITH DAPI

SKU: SP-8500-15



DESCRIPTION

The TrueVIEW Autofluorescence Quenching Kit with DAPI provides a novel way to diminish unwanted autofluorescence from non-lipofuscin sources and dramatically improve signal-to-noise ratio. It removes unwanted autofluorescence in tissue sections due to aldehyde fixation, red blood cells, and structural elements such as collagen and elastin. The quenching action of the kit reagents provides a clear, unambiguous, “true view” localization of the target antigen.

Features:

• Effective on problematic tissues such as kidney and spleen
• Easy-to-use, one-step method
• Compatible with a wide selection of fluorophores
• Compatible with standard epifluorescence and confocal laser microscopes
• Mounting medium contains DAPI for counterstaining in one stepOne kit is sufficient to treat approximately 100 to 150 tissue sections.

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

SPECIFICATIONS

Blocking Action	Autofluorescence
Unit Size	1 kit

KIT COMPONENTS

- TrueVIEW Reagent A, 5 ml
- TrueVIEW Reagent B, 5 ml
- TrueVIEW Reagent C, 5 ml
- VECTASHIELD Vibrance® Antifade Mounting Medium with DAPI, 2 ml

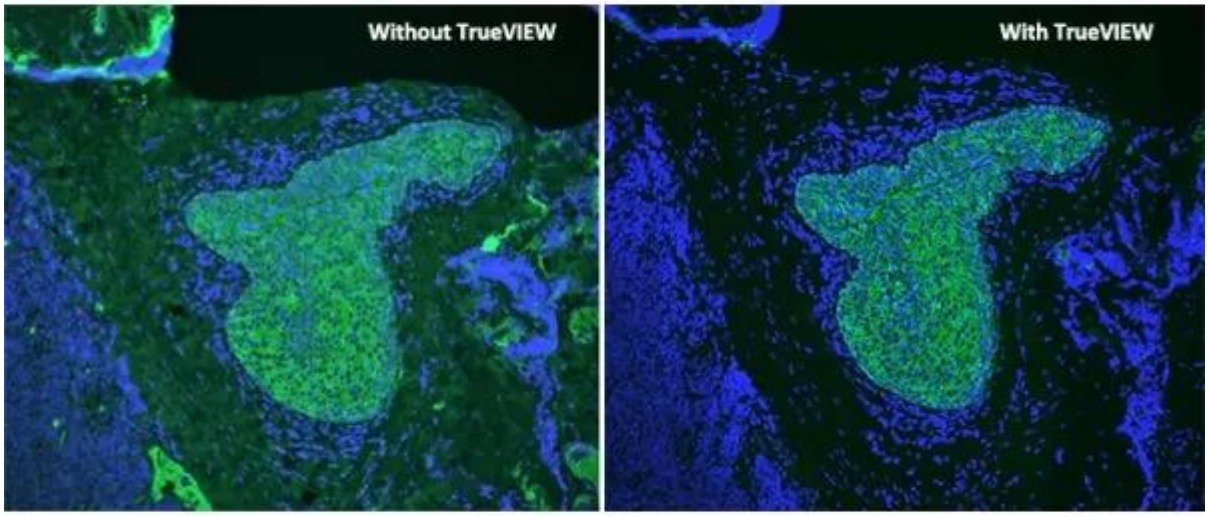
TECHNICAL INFORMATION

Tissue autofluorescence often occurs with aldehyde fixation or from inherent native tissue components (collagen, elastin, and red blood cells). The extent and intensity of autofluorescence background frequently makes it difficult or impossible to distinguish specific signals in immunofluorescence applications.

Most methods for reduction of tissue autofluorescence act primarily on lipofuscin granules, and are not broadly effective against the most common sources of autofluorescence targeted by TrueVIEW Quencher.

Current methods for reducing autofluorescence primarily include “home brew” concoctions such as sodium borohydride and other ink-based products. These methods are essentially ineffective against aldehyde induced autofluorescence. In contrast, Vector TrueVIEW reagent binds to hydrophilic compounds and effectively quenches endogenous autofluorescence.

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.



Human tonsil (FFPE); Section stained for AE1/AE3 using fluorescein label (green). Treated with TrueVIEW and mounted with VECTASHIELD Vibrance Antifade Mounting Medium with DAPI (nuclei blue).

Easy To Apply

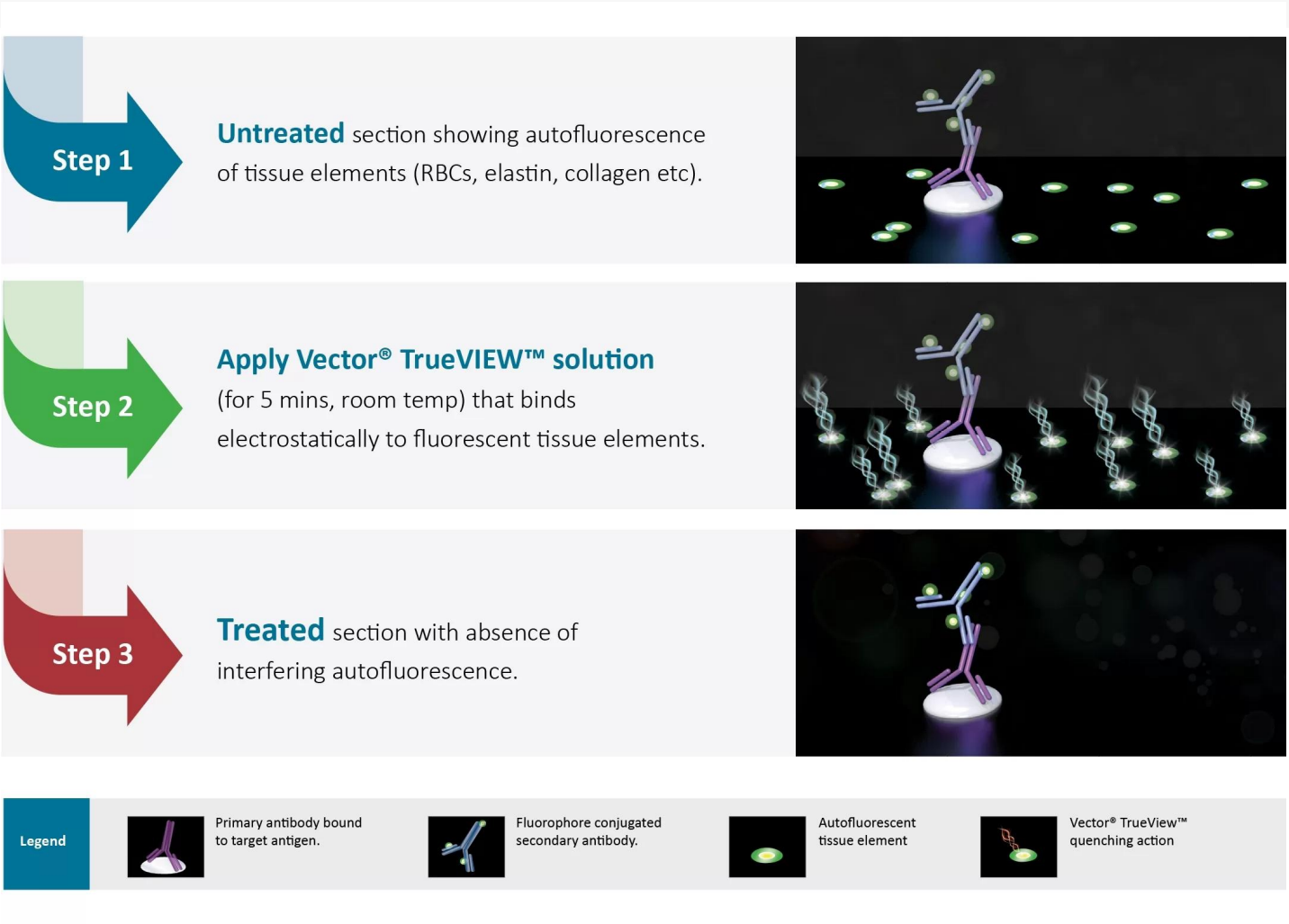
Following completion of the IF staining procedure:

Mode of Action

Following completion of the IF staining procedure:

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

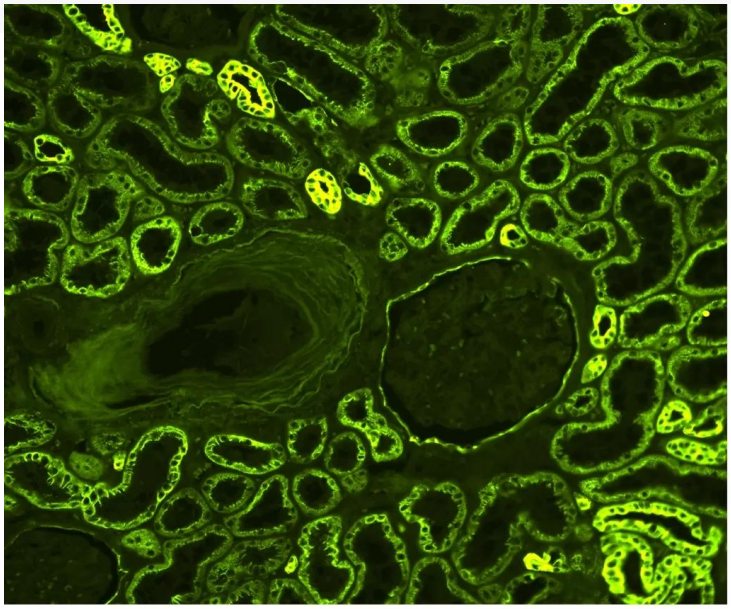
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600



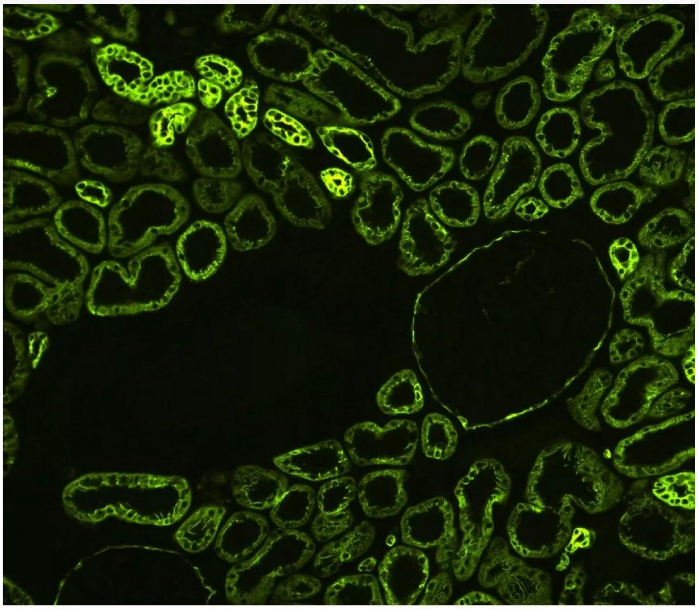
Signal to Noise Optimization

The primary antibody and detection reagents should be optimized (titered) in conjunction with Vector TrueVIEW Quenching Kit to achieve maximum signal to noise.

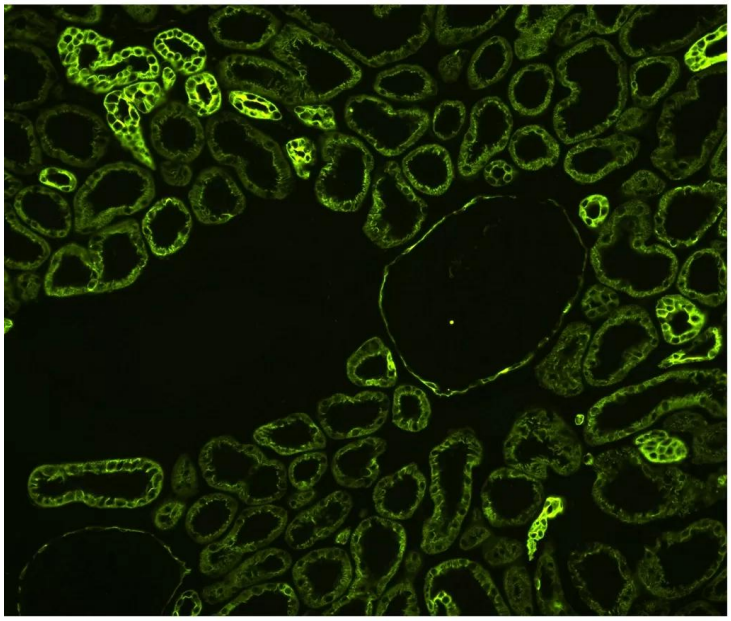
For research use only. Not intended for therapeutic or diagnostic use in animals or humans.



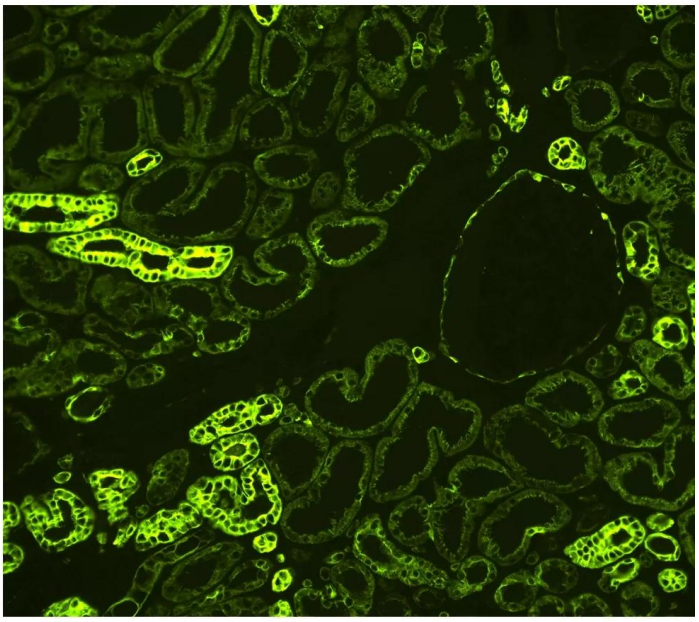
Kidney (FFPE): No TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, **1/100** dilution. 20x. 400 ms exposure.



Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, **1/25** dilution. 20x. 400 ms exposure.



Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, **1/50** dilution. 20x. 400 ms exposure.



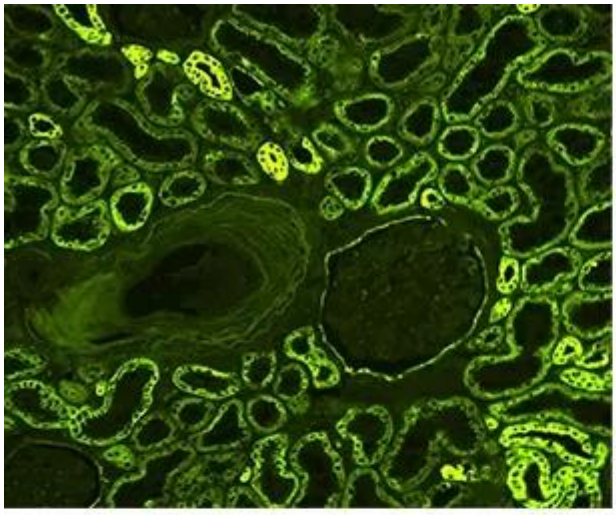
Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, **1/100** dilution. 20x. 400 ms exposure.

Optimization of Exposure

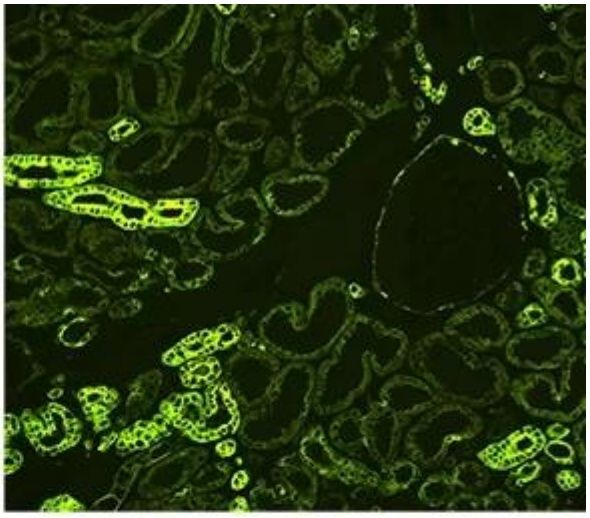
Increasing exposure times may be necessary to achieve optimal image acquisition for TrueVIEW

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

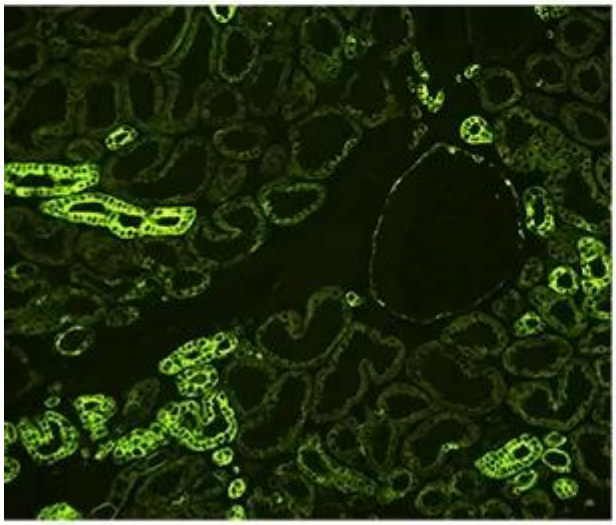
Quencher treated slides.



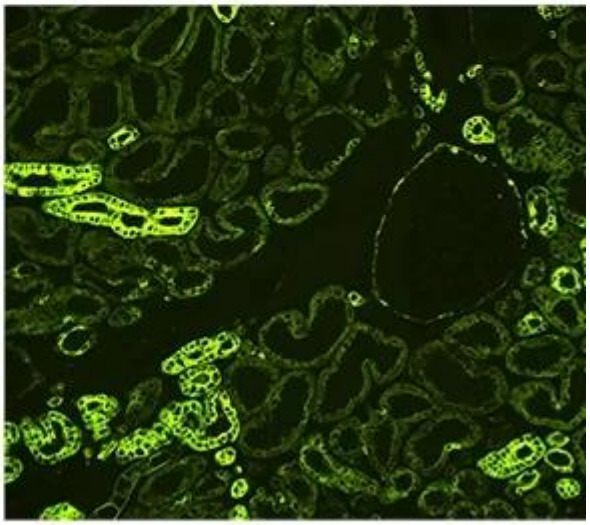
Kidney (FFPE): No TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, 1/100 dilution. 20x. **400 ms** exposure.



Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, 1/100 dilution. 20x. **400 ms** exposure.



Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, 1/100 dilution. 20x. **800 ms** exposure.



Kidney (FFPE): With TrueVIEW Quencher, stained with Anti-Pan Cytokeratin, 1/100 dilution. 20x. **1s** exposure.

Comparison Between Vector TrueVIEW Reagent and Other Autofluorescence Reducing Agents

We compared the effectiveness of Vector TrueVIEW quenching action in parallel with other commercially available autofluorescence reducing products and “home brew” reagents, on serial sections of formalin-fixed, paraffin-embedded human pancreas visualized using a standard fluorescein (green) filter. No specific immunofluorescence staining was conducted. The

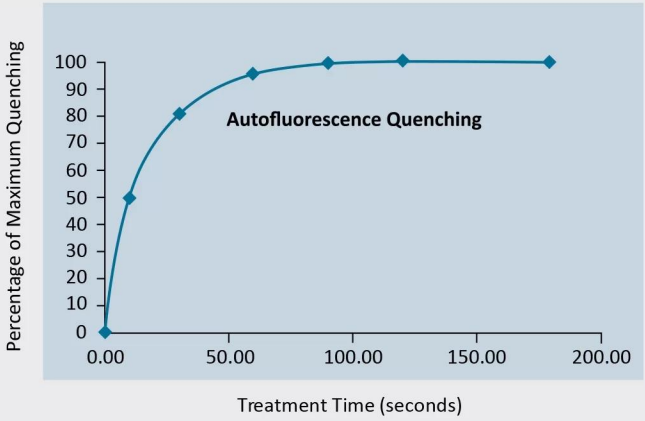
For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

images below highlight our results. All images were acquired under identical conditions (including microscope objective and exposure times).

Rapid Quenching Effect

Quenching of human kidney section autofluoresence at time points after Vector® TrueVIEW™ Treatment.

Note: Maximum quenching of autofluorescence is achieved within 2 minutes of application.



For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

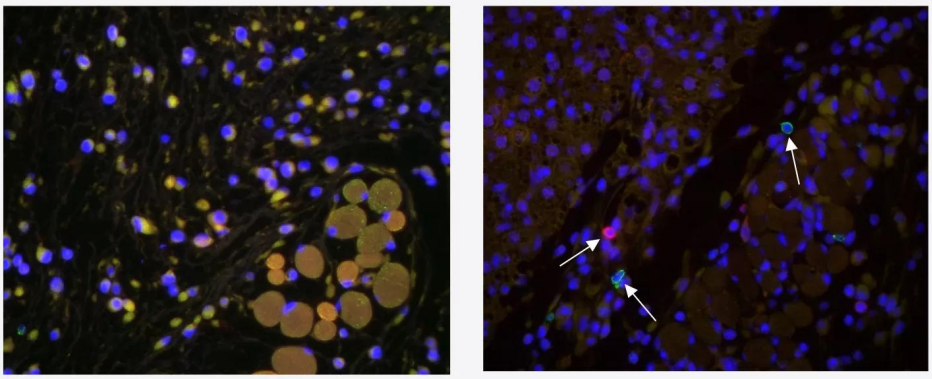
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600



Dr. Kaitlyn Sadtler
Postdoctoral Fellow
MIT, Boston Children's Hospital

"I would definitely use this reagent in the future — it is quick and reliable on multiple tissue types."
— Dr. K. Sadtler

WITHOUT Treatment **WITH TrueVIEW™ Quencher**



Adjacent mouse skin tissue sections (FFPE) double stained using primary antibodies against CD3 (Pan T cell marker) and B220 (CD45R) antigens with a DAPI (blue) counterstain. Note: interfering background autofluorescence on section without treatment (left image), and essentially total elimination of autofluorescence following treatment with Vector® TrueVIEW™ Quenching Reagent (right image). The arrows on the right image show the "true" actual antigen staining. Courtesy of Dr. Sadtler.



"I tested it after using a tyramide fluorescent detection kit (555) and also tested it with GFP expression models while also comparing this kit to a competitor's quenching solution. The TrueVIEW definitely decreased autofluorescence more than the competition while seeming to have no effect on GFP signal."
— Brian Tabb, MS, HTL, QIHC

Brian Tabb, MS, HTL, QIHC
Immunohistochemistry Scientist
Alizee Pathology

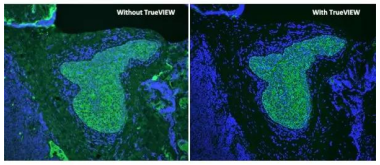
DOCUMENTS

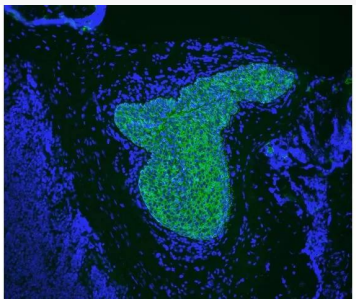
- Safety Data Sheet
- TrueVIEW® Application Note
- User Guide
- Download CoA
- Datasheet

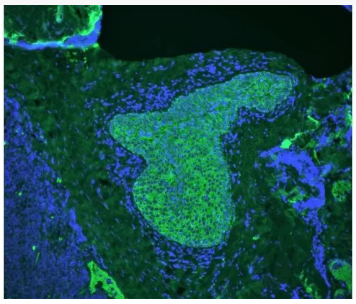
GALLERY IMAGES

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600









For research use only. Not intended for therapeutic or diagnostic use in animals or humans.