

# Vector® TrueVIEW™ Autofluorescence Quenching Kit

Dramatically Reduce Tissue Autofluorescence

## Reveal true immunofluorescence – even in challenging tissues

Vector® TrueVIEW™ Autofluorescence Quenching Kit provides a novel way to remove unwanted fluorescence in tissue sections due to aldehyde fixation, red blood cells, and structural elements such as collagen and elastin. This unique formulation binds and effectively quenches the autofluorescent elements in even the most problematic tissues, such as kidney, spleen and pancreas.

The use of Vector® TrueVIEW™ Quenching reagent leads to significant enhancement in overall signal-to-noise in most immunofluorescence assays.

## Unmatched effectiveness

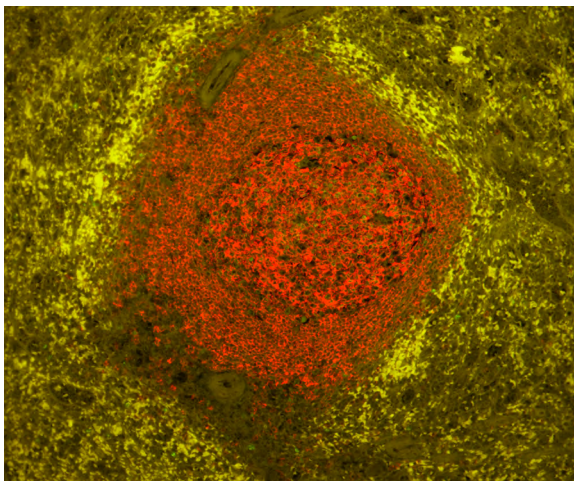
Most methods for reduction of tissue autofluorescence act primarily on lipofuscin granules, and are not broadly effective against the most common sources of autofluorescence targeted by Vector® TrueVIEW™ Quenching Reagent.

Vector® TrueVIEW™ Quenching reagent is a unique approach to diminish unwanted autofluorescence from non-lipofuscin sources, that retains the specific fluorescent antigen staining. The quenching action of the kit reagents therefore, provides the investigator with a clear, unambiguous, “true view” visualization of the intended target.

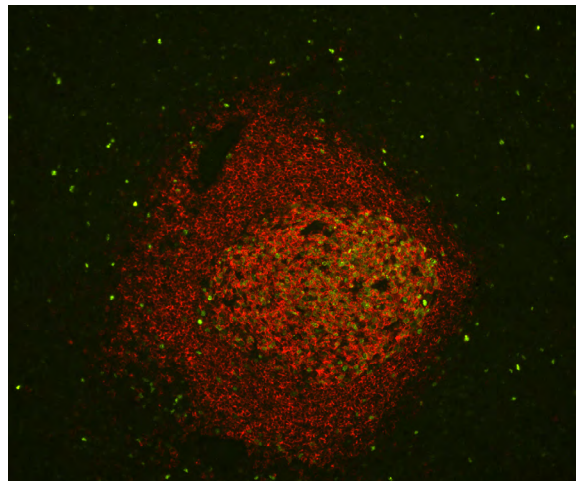
## Why TrueVIEW™ Quencher?

- Specific reduction of autofluorescence from aldehyde fixation
- Improved signal-to-noise ratio
- Effective in even the most challenging tissues
- Easy-to-use, one-step method
- Quick 5 min incubation
- Compatible with a wide selection of fluorophores
- Compatible with standard epifluorescence and confocal laser microscopes

## WITHOUT Treatment



## WITH TrueVIEW™ Quencher



Adjacent human spleen sections (FFPE) stained using mouse anti-CD20 (red) and rabbit anti-Ki67 (green) primary antibodies detected with VectaFluor® Duet kit (DK-8818). Note significant reduction of autofluorescence in the treated section (right) with retention of well-defined, specific signal in both red and green channels.

**Patent pending formulation.**

[vectorlabs.com](http://vectorlabs.com)

 **VECTOR**  
LABORATORIES  
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# Vector® TrueVIEW™ Autofluorescence

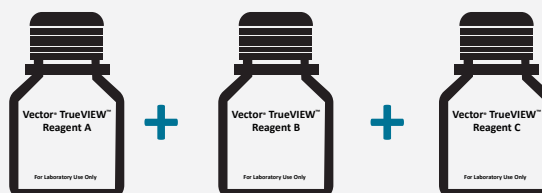
## Easy to Apply

Following completion of the IF staining procedure:

### Step 1

#### Mix reagents

1 : 1 : 1 ratio for desired volume



### Step 2

#### Apply working solution



### Step 3

#### Coverslip and visualize

Optimized for use with VECTASHIELD® HardSet™ Mounting Medium



## Kit Components

Vector® TrueVIEW™ Autofluorescence Quenching Kit	Unit Size
Vector® TrueVIEW™ Reagent A	5 ml
Vector® TrueVIEW™ Reagent B	5 ml
Vector® TrueVIEW™ Reagent C	5 ml
VECTASHIELD® HardSet Antifade Mounting Medium	2 ml



- One kit is sufficient to treat ~ **100 to 150** sections.
- Stable for **several hours** once made

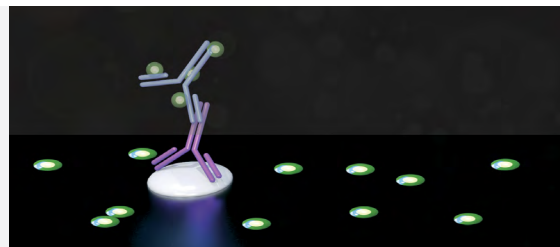
# Quenching

## Mode of Action

After completion of detection IF procedure:

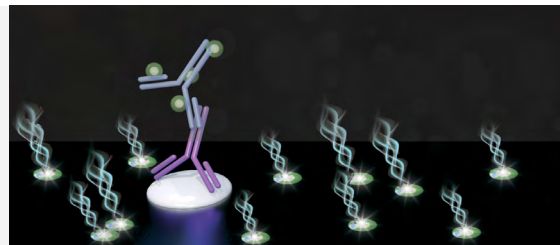
### Step 1

**Untreated** section showing autofluorescence of tissue elements (RBCs, elastin, collagen etc).



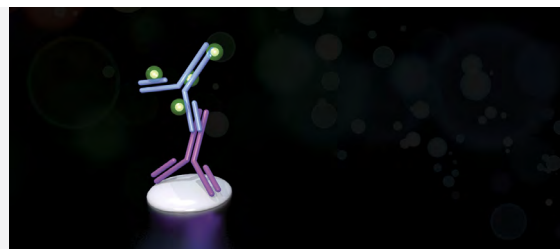
### Step 2

**Apply Vector® TrueVIEW™ solution** (for 5 mins, room temp) that binds electrostatically to fluorescent tissue elements.



### Step 3

**Treated** section with absence of interfering autofluorescence.



#### Legend



Primary antibody bound to target antigen.



Fluorophore conjugated secondary antibody.



Autofluorescent tissue element



Vector® TrueVIEW™ quenching action

## Compatible with Popular Fluorophores

- Alexa Fluor® 488, 594 & 647
- DyLight® 488, 594 & 649
- Fluorescein (FITC), Cyanine 3 (Cy®3), Cyanine 5 (Cy®5)
- Green Fluorescent Protein (GFP)

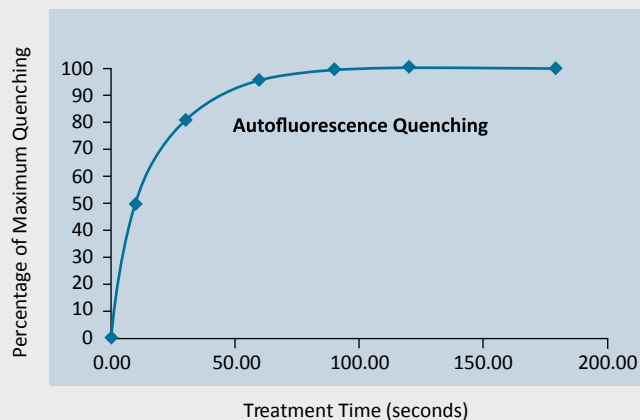
## Effective across visible & far red spectrum



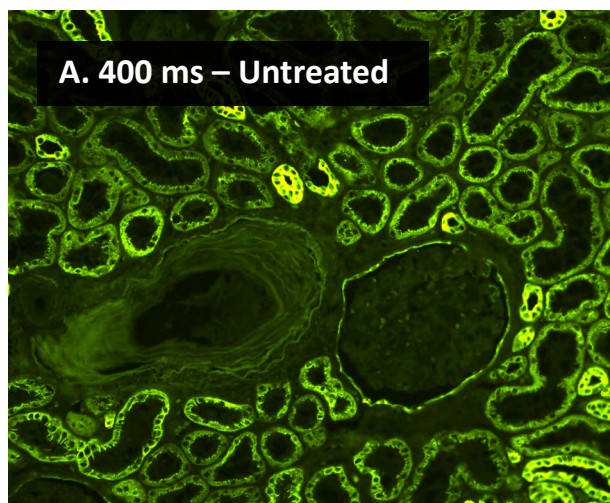
## Rapid Quenching Effect

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

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



## Significant improvement in signal-to-noise ratio

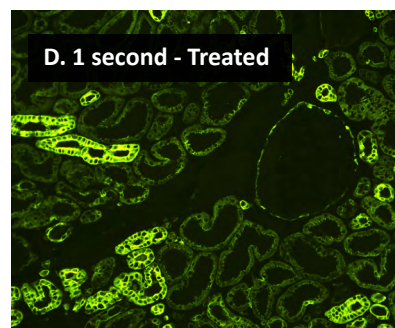
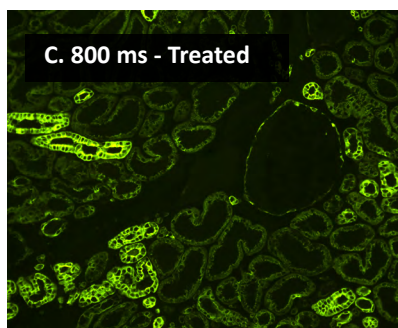
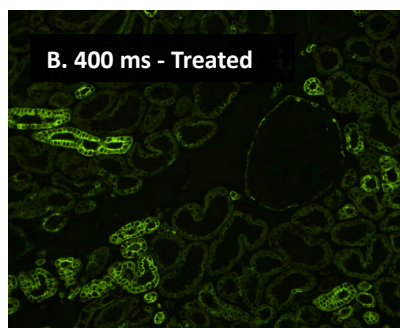


Antigen retrieved human kidney sections (FFPE), stained for cytokeratin using anti-AE1/AE3 antibody (green). **Images A-D.**

Without treatment **(A)**.

With TrueVIEW™ Quencher **(B-D)**.

Exposure times were lengthened to increase signal intensity.

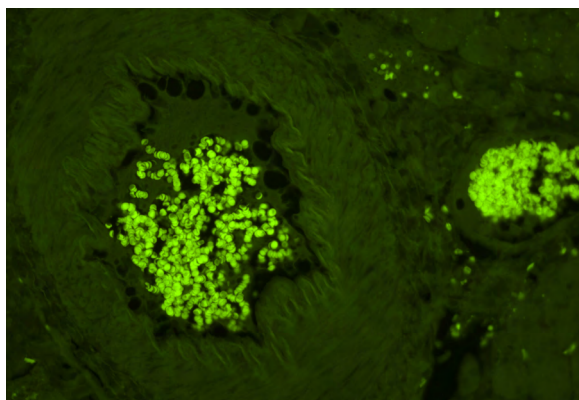




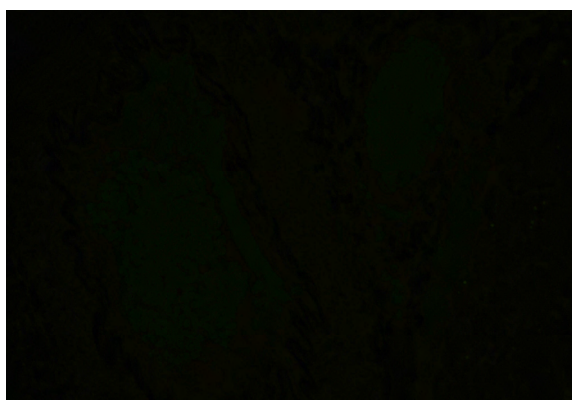
# Comparison between Vector® TrueVIEW™ reagent and other autofluorescence reducing agents

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

**No Treatment** (Endogenous autofluorescence)

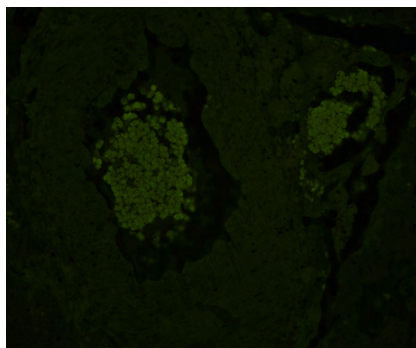


**TrueVIEW™ Quencher Treated**

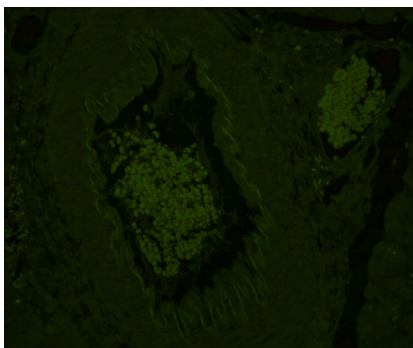


## Competitor and other autofluorescence treatments

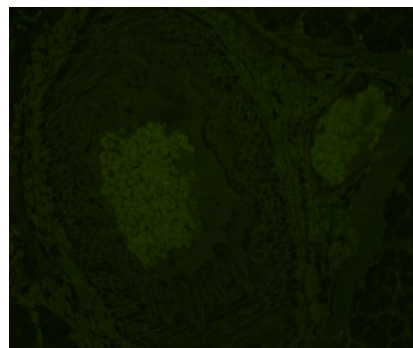
Company A



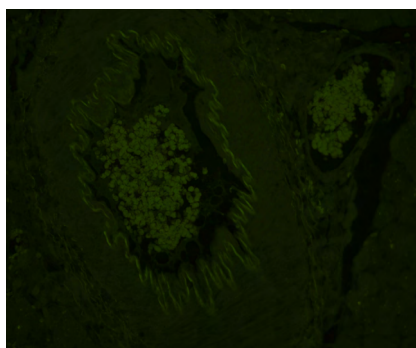
Company B



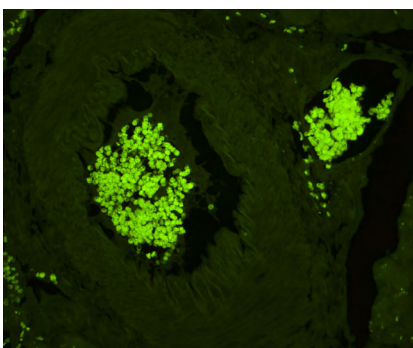
Company C



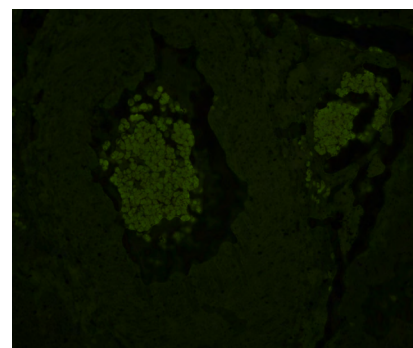
Copper Sulfate Solution



Sodium Borohydride



Sudan Black B



# Customer Testimonials and Ordering Information

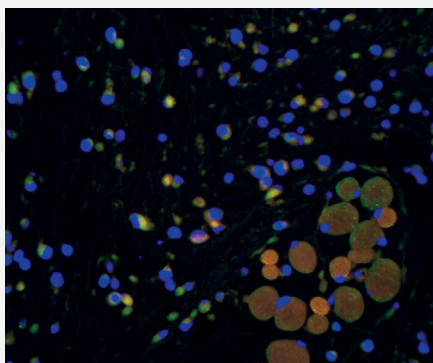


**Dr. Kaitlyn Sadtler**  
Postdoctoral Fellow  
MIT, Boston Children's Hospital

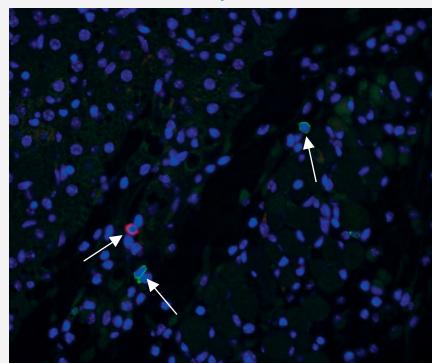
*"I would definitely use this reagent in the future — it is quick and reliable on multiple tissue types."*

— Dr. K. Sadtler

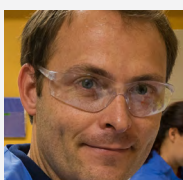
**WITHOUT Treatment**



**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.



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

*"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

## Ordering Information

Product	Catalog Number
Vector® TrueVIEW™ Autofluorescence Quenching Kit	SP-8400
VECTASHIELD® HardSet™ Antifade Mounting Medium	H-1400
VECTASHIELD® HardSet™ with DAPI Antifade Mounting Medium	H-1500

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