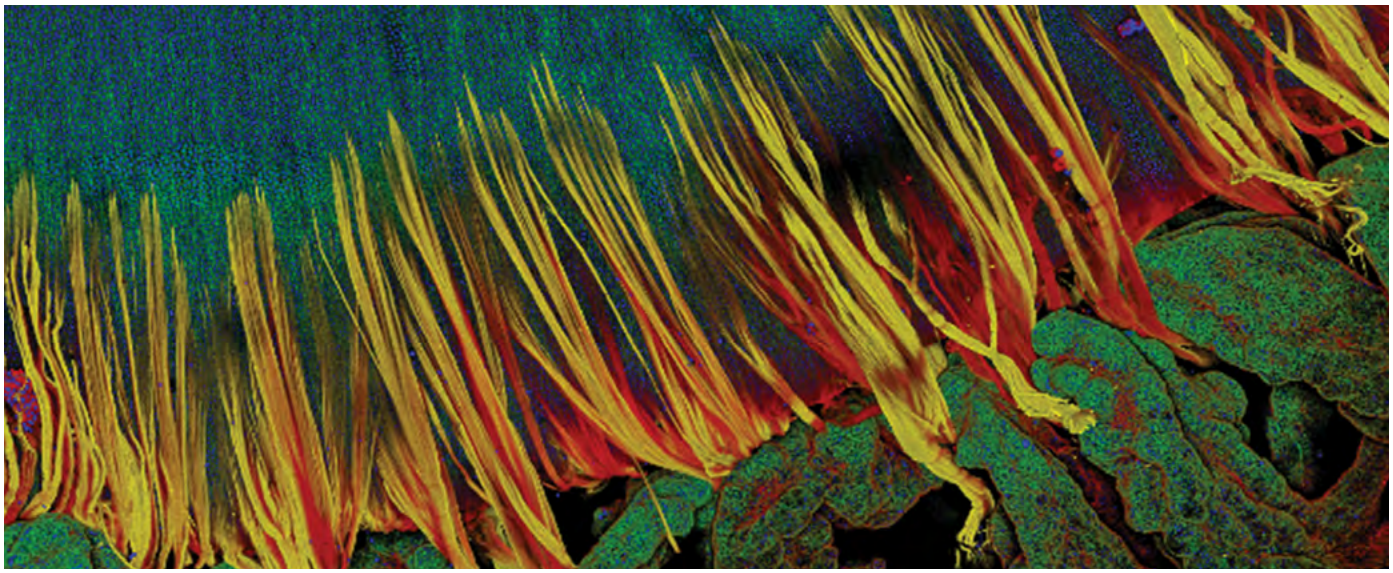
VECTASHIELD® Antifade Mounting Media

Unsurpassed antifading properties



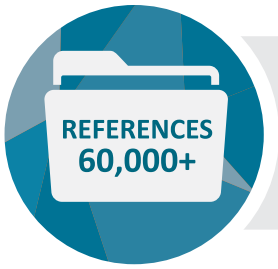
This image shows a 3D reconstruction of a confocal z-stack through a human lens with attached cilliary body and zonules. The zonules are stained with rhodamine labeled wheat germ agglutinin (RL-1022; red) and microfibril-associated glycoprotein MAGP-1 (yellow). The ciliary body (foreground) and the lens (behind the zonules) are stained with phalloidin (F-actin, green). Coverslipped using VECTASHIELD Antifade Mounting Medium with DAPI (H-1200; nuclei, blue). Image courtesy of Dr. Catherine Cheng, The Scripps Research Institute, USA.

Choosing an effective mounting medium is especially important for immunofluorescence imaging. Fluorophores are susceptible to photobleaching and fading from both the imaging excitation light and during storage. The right mounting medium will protect your samples for short- and long-term use and archiving.

VECTASHIELD Antifade Mounting Media formulations offer unsurpassed protection against fading and photobleaching. The VECTASHIELD, VECTASHIELD HardSet™ and VECTASHIELD Vibrance™ Antifade Mounting Media are well-established, market-leading products that complete the workflow and provide excellent signal retention for image acquisition and specimen archiving.

Key Advantages

- Inhibits photobleaching of most fluorophores, dyes, fluorescent proteins and stains
- Ideal refractive index
- Ready to use, no warming necessary
- Continues to inhibit photobleaching even after prolonged storage of mounted slides
- Easy-to-use
- With or without nuclear or cytoskeletal counterstain
- Hardening or non-hardening formulations



VECTASHIELD®

The MOST widely referenced antifade mounting media!

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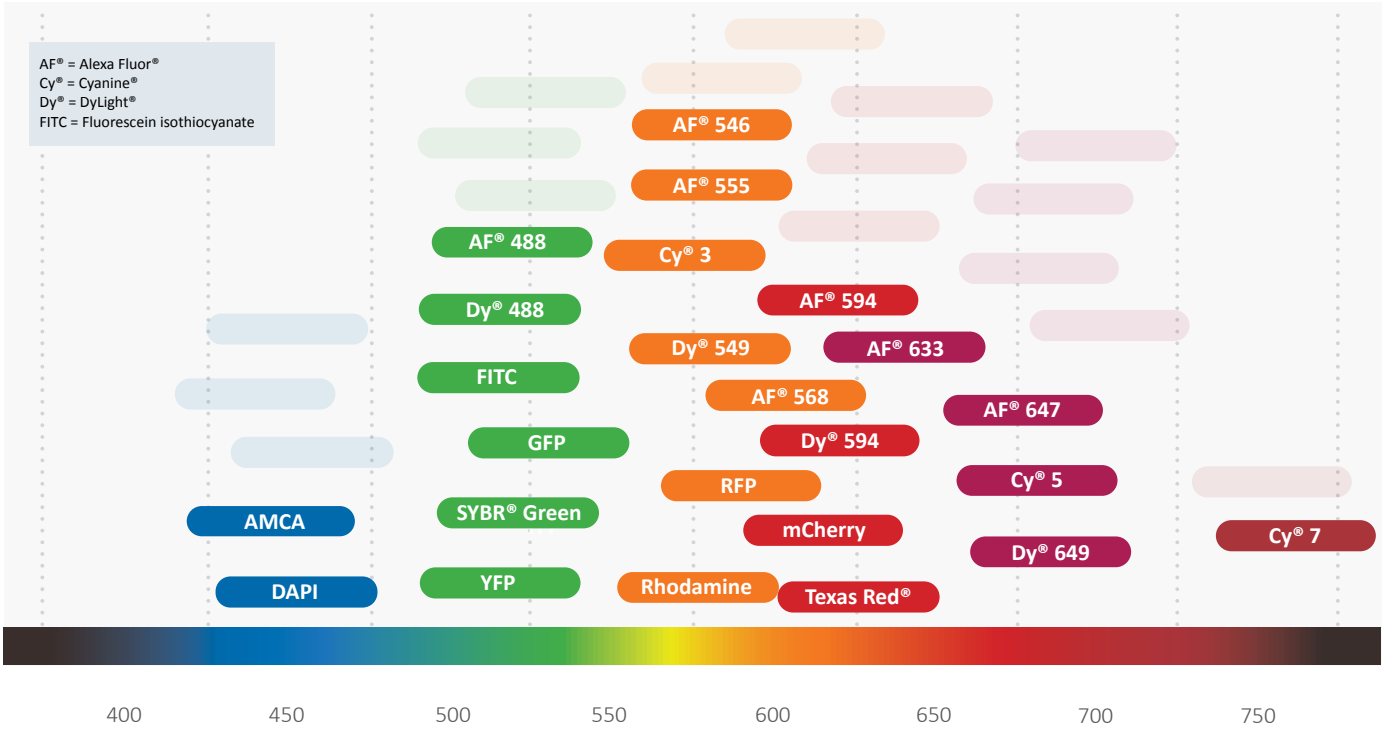
VECTASHIELD Mounting Media and Fluorophore Compatibility

VECTASHIELD Mounting Media are the most widely referenced antifade mounting media for immunofluorescence applications. Currently over 60,000 published references cite using VECTASHIELD Mounting Media and describe compatibility with over 130 fluorophores and fluorescent markers. This data underscores the prominence of VECTASHIELD reagents in this application.

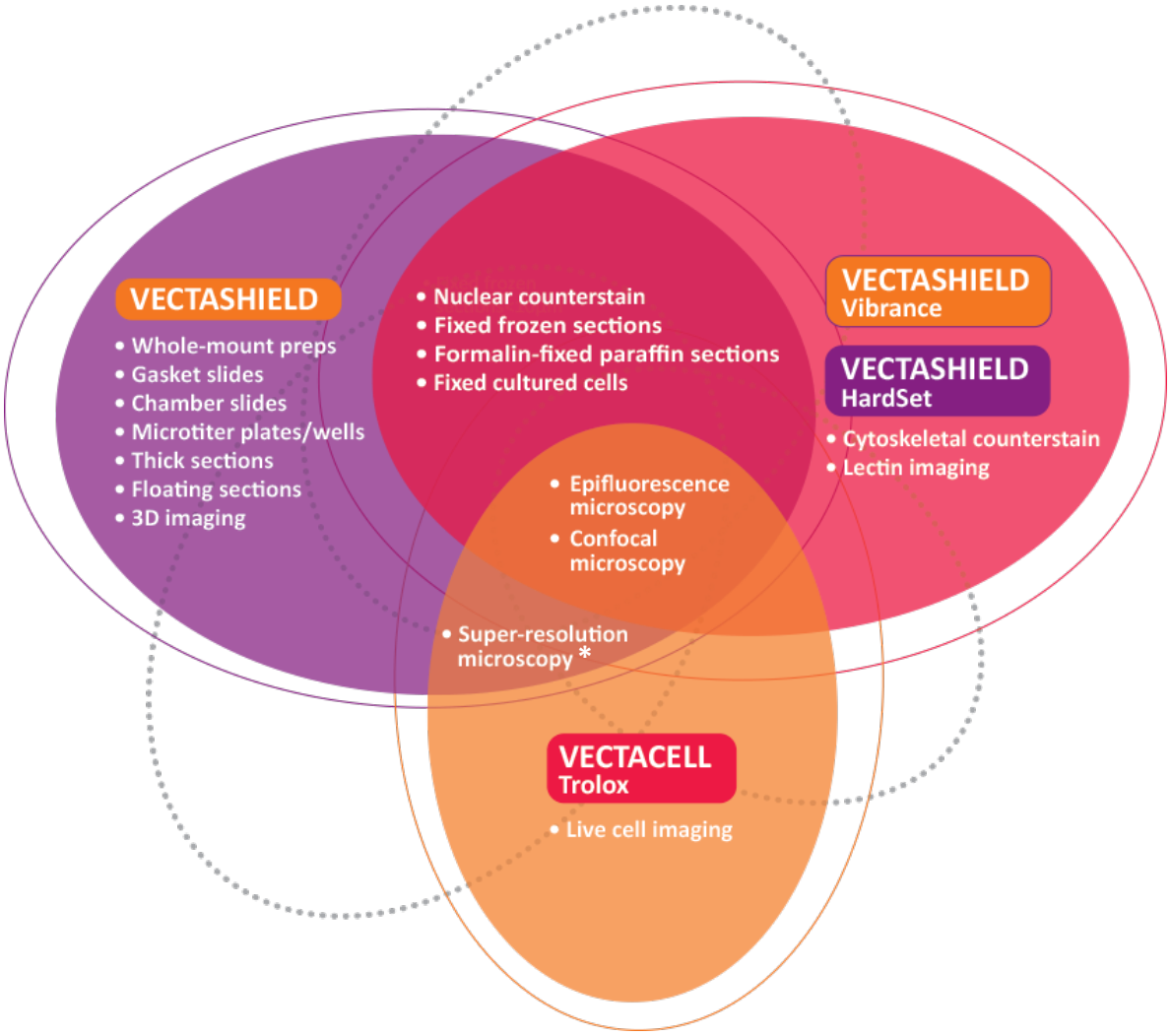
The graphic below highlights the most commonly referenced fluorophores used in combination with VECTASHIELD Antifade Mounting Media.



The fluorescent compounds listed in the table below are select reagents that are also cited as being successfully used in combination with VECTASHIELD Antifade Mounting Media. The range of these compounds, from traditional to contemporary, across a broad spectral range, and used in an array of applications, showcase the versatility of VECTASHIELD reagents. For a comprehensive list of the >130 fluorophores and fluorescent markers that have been used with VECTASHIELD products please visit our website at: **vectorlabs.com/vslist**

Fluorophore				
acridine orange	coumarin	Fluoro-Jade®	NeuroTrace®	Quantum dot/Qdot
Alexa Fluor® 350	dihydroethidium	Lucifer yellow	Nile red	SYTOX® Green
Alexa Fluor® 680	DRAQ5™	LysoTracker®	Oil red O	TAMRA
Atto® dyes	Evans blue	LysoTracker® Red	Pacific Blue™	thioflavin s
BODIPY®	fast blue	MitoTracker® Red	PicoGreen®	TOTO®-3

VECTASHIELD Mounting Media Formats and Applications



The illustration above features established applications for our antifade mounting media formats. VECTASHIELD Antifade Mounting Media are widely utilized to protect the inherent fluorescent properties of traditional and contemporary fluorophores in many applications using epifluorescence and confocal microscopy.

The versatility of the original VECTASHIELD format solves the demands of labs and core facilities using multiple platforms and fluorescent markers. Furthermore, VECTASHIELD reagents are also recognized as leading media in emerging techniques such as super resolution microscopy (SRM).

Of the SRM techniques currently being performed, the properties of VECTASHIELD Antifade Mounting Media have been found to be advantageous in stochastic optical reconstruction microscopy (STORM) and structured illumination microscopy (SIM).

* Super Resolution (STORM and SIM) select references:

Olivier N, Keller D, Rajan VS, Gönczy P, and Manley S "Simple buffers for 3D STORM microscopy," *Biochemical Optics Express* 4, 885-899 (2013)

Wegel, E., et al. "Imaging cellular structures in super-resolution with SIM, STED and Localisation Microscopy: A practical comparison", *Scientific Reports*, 6, 27290. (2016)

VECTASHIELD Antifade Mounting Medium

Glycerol-based, aqueous mountant that remains a viscous liquid on the slide rather than solidifying. After mounting, cover-slipped slides will not readily dry out, enabling you to review them for weeks without the need for sealing. For prolonged storage, coverslips can be permanently sealed with nail polish applied on the coverslip perimeter.

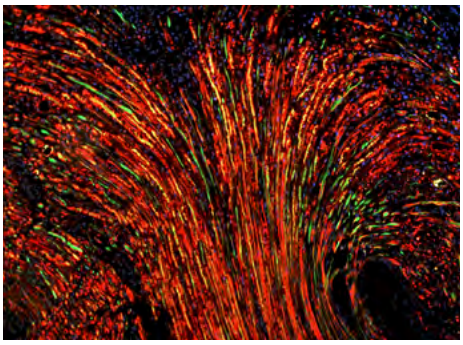
VECTASHIELD HardSet Antifade Mounting Medium

An aqueous mountant that hardens at room temperature in as little as 20 minutes. This mounting medium provides easy slide handling, eliminates the need to secure the coverslip with nail polish, and is convenient for use with oil immersion microscopy. Available with or without DAPI or TRITC-phalloidin counterstain.

VECTASHIELD Vibrance Antifade Mounting Medium

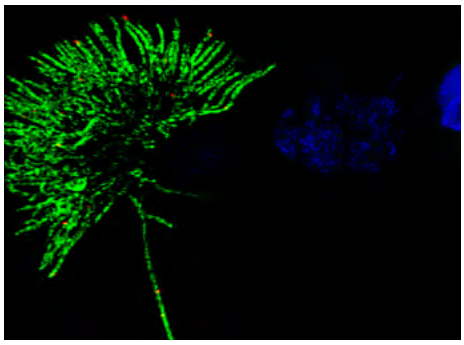
A new formulation of aqueous mountant that cures quickly to enable visualization one hour after coverslipping and room temperature archiving of specimens for several months. This mounting medium reduces the occurrence of bubble formation, media retraction and background fluorescence with storage and eliminates the need for sealing the perimeter of the coverslip. Available with or without DAPI counterstain.

Tissue Sections



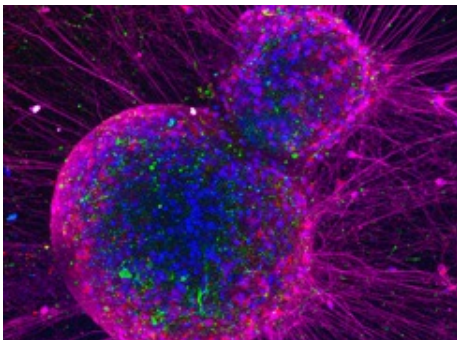
Rat muscle (FFPE): GFAP (red) and NF200 (green). Counterstained and coverslipped with VECTASHIELD Mounting Medium with DAPI (blue). The double IF was performed by Dr. Lynn Dong, Dept of Biomedical Sciences, College of Veterinary Medicine, Cornell University, Ithaca, NY, USA.

Super Resolution



Structured illumination super resolution photomicrograph of a ciliated bovine airway epithelial cell labeled for acetylated alpha tubulin (cilia marker; green), and phosphodiesterase 5 (red). VECTASHIELD HardSet Antifade Mounting Medium with DAPI (H-1200; nuclei, blue). Image provided by Michael E. Price, Univ. of NE Med. Ctr., assisted by Janice A. Taylor and James R. Talaska, AMCF Univ. of NE Med. Ctr., USA

Cell Culture



Human embryonic stem cell (hESC)-derived neurons stained with Brn3a (Green), Peripherin (Red), Beta-3 Tubulin (Magenta). Coverslipped using VECTASHIELD Antifade Mounting Medium with DAPI (H-1200; nuclei, blue). Image courtesy of Michael Yee, Kinchington Lab, Department of Ophthalmology, University of Pittsburgh, USA.

Product	No Counterstain	DAPI	PI	TRITC-Phalloidin
VECTASHIELD Mounting Medium (non-hardening)	H-1000	H-1200	H-1300	
VECTASHIELD HardSet Mounting Medium (hardening)	H-1400	H-1500		H-1600
VECTASHIELD Vibrance Mounting Medium (hardening)	H-1700	H-1800		

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