

# FluoCells® Prepared Microscope Slides

**Table 1.** Contents and storage information.

Material	Amount	Storage*	Stability
FluoCells® prepared slide #1 (F36924) – BPAE cells	- One slide per package, packaged	• 4°C • Protect from light	When stored properly, these permanently mounted specimens retain their bright, specific staining patterns for at least six months from the date of purchase.†
FluoCells® prepared slide #2 (F14781) – BPAE cells			
FluoCells® prepared slide #3 (F24630) – mouse kidney section		• ≤-20°C	
FluoCells® prepared slide #4 (F24631) – mouse intestine section	individually	Protect from light	
FluoCells® prepared slide #6 (F36925) – muntjac skin fibroblasts		4°C     Protect from light	

<sup>\*</sup>The FluoCells $^{\circ}$  slides #3 and #4 can be stored for short periods of time (a few days) at 2–25 $^{\circ}$ C without harm.  $^\dagger$ Short-term exposure of any FluoCells $^\circ$  slide to dim light (e.g., room lighting) will not cause damage.

Approximate fluorescence excitation/emission maxima: See Table 2.

## Introduction

FluoCells® prepared microscope slides contain multilabeled cell or cryosection preparations for observation by epifluorescence or confocal microscopy. The multicolor staining in these cell preparations results in stunning, publication-quality images. The slides are especially useful for setting up microscopes and camera systems, and for assessing the capabilities of optical filter sets.

- FluoCells\* prepared slide #1 (F36924) contains bovine pulmonary artery endothelial (BPAE) cells stained with a combination of fluorescent dyes. Mitochondria were labeled with red-fluorescent MitoTracker® Red CMXRos, F-actin was stained using green-fluorescent Alexa Fluor® 488 phalloidin, and blue-fluorescent DAPI was used to label the nuclei.
- FluoCells\* prepared slide #2 (F14781) also contains BPAE cells, but stained with redfluorescent Texas Red®-X phalloidin for labeling F-actin, mouse monoclonal anti-α-tubulin in conjunction with green-fluorescent BODIPY® FL goat anti-mouse IgG for labeling microtubules and blue-fluorescent DAPI for labeling the nuclei.

- FluoCells\* prepared slide #3 (F24630) contains a 16 μm cryostat section of mouse kidney stained with a combination of fluorescent dyes. Alexa Fluor® 488 wheat germ agglutinin, a green-fluorescent lectin, was used to label elements of the glomeruli and convoluted tubules. The filamentous actin prevalent in glomeruli and the brush border were stained with red-fluorescent Alexa Fluor® 568 phalloidin. Finally, the nuclei were counterstained with the blue-fluorescent DNA stain DAPI.
- FluoCells<sup>®</sup> prepared slide #4 (F24631) contains a 16 μm cryostat section of mouse intestine stained with a combination of fluorescent stains. Alexa Fluor® 350 wheat germ agglutinin, a blue-fluorescent lectin, was used to stain the mucus of goblet cells. The filamentous actin prevalent in the brush border was stained with red-fluorescent Alexa Fluor\* 568 phalloidin. Finally, the nuclei were stained with SYTOX® Green nucleic acid stain.
- FluoCells\* prepared slide #6 (F36925) contains muntjac skin fibroblast cells stained with a combination of fluorescent stains. The prominent filamentous actin in these cells was labeled with Alexa Fluor® 488 phalloidin. Mitochondria were labeled with an anti-OxPhos Complex V inhibitor protein mouse monoclonal antibody in conjunction with Alexa Fluor® 555 goat anti-mouse IgG. Nuclei were labeled with the far-red fluorescent TO-PRO\*-3 nucleic acid stain.

Table 2. Spectral characteristics of the stains used in FluoCells® prepared microscope slides.

Dye	Ex*	Em*
FluoCells® prepared slide #1 (F36924) – BPAE cells		
DAPI	358 <sup>†</sup>	461 <sup>†</sup>
Alexa Fluor® 488 phalloidin	505	512
MitoTracker® Red CMXRos	579 <sup>‡</sup>	599 <sup>‡</sup>
FluoCells® prepared slide #2 (F14781) – BPAE cells	-	
DAPI	358 <sup>†</sup>	461 <sup>†</sup>
BODIPY® FL goat anti-mouse IgG	505	513
Texas Red®-X phalloidin	591	608
FluoCells® prepared slide #3 (F24630) – mouse kidney section		
DAPI	358 <sup>†</sup>	461 <sup>†</sup>
Alexa Fluor® 488 wheat germ agglutinin	495	519
Alexa Fluor® 568 phalloidin	578	600
FluoCells® prepared slide #4 (F24631) – mouse intestine section		
Alexa Fluor® 350 wheat germ agglutinin	346	442
SYTOX® Green stain	504 <sup>†</sup>	523 <sup>†</sup>
Alexa Fluor® 568 phalloidin	578	600
FluoCells® prepared slide #6 (F36925) – muntjac skin fibroblasts		
Alexa Fluor® 488 phalloidin	495	519
Alexa Fluor® 555 goat anti–mouse IgG	555	571
TO-PRO®-3 stain	642 <sup>†</sup>	661 <sup>†</sup>

<sup>\*</sup> Fluorescence excitation (Ex) and emission (Em) maxima, in nm. † When bound to DNA. ‡ Determined in methanol; values may vary somewhat in cellular environments.

## Using FluoCells® prepared microscope slides

Usage of FluoCells® prepared microscope slides varies, but you may image the samples on these slides using fluorescence widefield or confocal microscopy with filter settings appropriate for the dyes. Appropriate hardware and software settings, such as exposure and gain, differ by instrument and need to be determined empirically. Though these dyes are relatively robust and, in the case of FluoCells® #3 and #4, are mounted using our ProLong® antifade mounting medium, you should minimize light exposure to avoid photobleaching.

# **Product List** Current prices may be obtained from our website or from our Customer Service Department.

<b>Cat. no.</b> F14781	<b>Product Name</b> FluoCells® prepared slide #2 *BPAE cells with mouse anti- $\alpha$ -tubulin, BODIPY® FL goat anti-mouse IgG, Texas Red®-X	Unit Size
	phalloidin, DAPI*	each
F24630	FluoCells® prepared slide #3 *mouse kidney section with Alexa Fluor® 488 WGA, Alexa Fluor® 568 phalloidin, DAPI*	each
F24631	FluoCells® prepared slide #4 *mouse intestine section with Alexa Fluor® 350 WGA, Alexa Fluor® 568 phalloidin, SYTOX® Green*	each
F36924	FluoCells® prepared slide #1 *BPAE cells with MitoTracker® Red CMXRos, Alexa Fluor® 488 phalloidin, DAPI*	each
F36925	FluoCells® prepared slide #6 *muntjac cells with mouse anti-OxPhos Complex V inhibitor protein,	
	Alexa Fluor® 555 goat anti-mouse IgG, Alexa Fluor® 488 phalloidin, TO-PRO®-3*	each

# **Contact Information**

#### Molecular Probes, Inc.

29851 Willow Creek Road Eugene, OR 97402 Phone: (541) 465-8300 Fax: (541) 335-0504

#### **Customer Service:**

6:00 am to 4:30 pm (Pacific Time) Phone: (541) 335-0338 Fax: (541) 335-0305 probesorder@invitrogen.com

#### **Toll-Free Ordering for USA:**

Order Phone: (800) 438-2209 Order Fax: (800) 438-0228

#### **Technical Service:**

8:00 am to 4:00 pm (Pacific Time) Phone: (541) 335-0353 Toll-Free (800) 438-2209 Fax: (541) 335-0238 probestech@invitrogen.com

#### **Invitrogen European Headquarters**

Invitrogen, Ltd. 3 Fountain Drive Inchinnan Business Park Paisley PA4 9RF, UK Phone: +44 (0) 141 814 6100 Fax: +44 (0) 141 814 6260 Email: euroinfo@invitrogen.com Technical Services: eurotech@invitrogen.com

For country-specific contact information, visit www.invitrogen.com.

Further information on Molecular Probes products, including product bibliographies, is available from your local distributor or directly from Molecular Probes, Customers in Europe, Africa and the Middle East should contact our office in Paisley, United Kingdom, All others should contact our Technical Service Department in Eugene, Oregon.

Molecular Probes products are high-quality reagents and materials intended for research purposes only. These products must be used by, or directly under the supervision of, a technically qualified individual experienced in handling potentially hazardous chemicals. Please read the Material Safety Data Sheet provided for each product; other regulatory considerations may apply.

### Limited Use Label License No. 223: Labeling and Detection Technology

The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. The buyer may transfer information or materials made through the use of this product to a scientific collaborator, provided that such transfer is not for any Commercial Purpose, and that such collaborator agrees in writing (a) to not transfer such materials to any third party, and (b) to use such transferred materials and/or information solely for research and not for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing: (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. Invitrogen Corporation will not assert a claim against the buyer of infringement of the above patents based upon the manufacture, use or sale of a therapeutic, clinical diagnostic, vaccine or prophylactic product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. If the purchaser is not willing to accept the limitations of this limited use statement, Invitrogen is willing to accept return of the product with a full refund. For information on purchasing a license to this product for purposes other than research, contact Molecular Probes, Inc., Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.

Several Molecular Probes products and product applications are covered by U.S. and foreign patents and patents pending. All names containing the designation of are registered with the U.S. Patent and Trademark Office.

Copyright 2009, Molecular Probes, Inc. All rights reserved. This information is subject to change without notice.