

• Waterborne™, Inc.

Environmental & Clinical Parasitology Products



2015

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Cover Photo: Cullasaja River, Macon County, North Carolina



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To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

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Cover Photo: Cullasaja River, Macon County, North Carolina

Our Company Mission

The mission of Waterborne™, Inc. is to provide products of the highest quality and at a reasonable price to the water-testing industry and research laboratories, while supporting these products with rapid and personalized customer service and technical support.

Contacting Us

Our hours of operation are, M-F, 9:00 a.m. to 5:00 p.m. Central Time. Please call us for orders, product information, pricing, or technical support. Also, email us anytime. We will respond as quickly as possible.

Billing: accounts@waterborneinc.com

Email

Email Orders: orders@waterborneinc.com

Technical Support: support@waterborneinc.com

All Other Inquiries: custserv@waterborneinc.com

Phone

Toll-Free Telephone & Fax: 866-895-3338

Telephone & Fax: 504-895-3338

Post

Lab Address: 924 Valmont Street, Ste. 101A, New Orleans, LA 70115

Office Address: 6045 Hurst Street, New Orleans, LA 70115

Technical Support

Our hours of operation are, M-F, 9:00 a.m. to 5:00 p.m. Central Time. Please contact us by telephone, fax, or email.

Custom Orders

We offer antibody reagents labeled with a variety of fluorochromes; however, we can create kits using any fluorochrome.

Parasite preparations can be customized for your specific needs. Please let us know if you need an item suspended in a different solution, volume, freeze or heat-killed, etc.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

Waterborne™, Inc. is a worldwide leader in the field of environmental and clinical parasitology, with emphasis on ***Giardia*, *Cryptosporidium*** and **microsporidia**, providing fluorescent antibody kits for testing surface water and other environmental samples and for veterinary disease diagnosis.

Waterborne™, Inc. offers an extensive line of fluorescent antibody kits, with a variety of fluorochromes, for use in the detection of cysts, oocysts, and spores of *Giardia* spp., *Cryptosporidium* spp., and microsporidian species (*Encephalitozoon intestinalis*, *E. cuniculi*, *E. hellem*, and *Enterocytozoon bienusi*) in **water, food**, and various **environmental samples**, and for use in **veterinary clinical diagnosis**.

Detection kits can be used in the following manner:

- immunofluorescence microscopy
- flow cytometry
- fluorescence-activated cell sorting
- laser scanning-based systems
- immunomagnetic separation (IMS methods).

Detection kits for water and food testing are available for the simultaneous detection of *Giardia* and *Cryptosporidium*, containing combined antibodies against each parasite or as individual antibody kits for the detection of single parasite stages, genera, or species.

All kits are available as "**Reagent-Only Kits**" (**R-1X** or **R-20X**), offered in two concentration formats, 1x and 20x. The *Giardia* and *Cryptosporidium* detection kits are also available as "**Comprehensive Kits**" (**K**). The items in the three formats are outlined below.

Comprehensive Kits	Reagent-Only Kits
(K)	(R-1X)
<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • PC101: Positive control, 1.0 mL • M101: No-Fade™ Mounting Medium, 3.5 mL • C101: Block-Out™ Counterstain, 3.5 mL • WB101: 1X SureRinse™ wash buffer, 50 mL • S100-2: SuperStick™ Slides, 2-well, 1 box, 40 slides • D101: 5000x DAPI, 0.4 mL • 75+ assays 	<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • PC101: Positive control, 1.0 mL • 75+ assays
	R-20X
	<ul style="list-style-type: none"> • 20x concentrated antibody reagent, 1.0 mL • PC101: Positive control, 1.0 mL • B100-20: Dilution/Blocking Buffer, 20 mL • M101: No-Fade™ Mounting Medium, 3.5 mL • 400+ assays

A variety of fluorochromes are available in the detection kits as seen in the chart below.**

Fluorochrome	Fluorochrome Code	Fluorescence	Maximum λ (nm)	
			Excitation	Emission
Aminomethylcoumarin	AMCA	Blue	352	448
AlexaFluor®350	AF350	Blue	346	442
Fluorescein (FL-5-EX)	FL	Green	492	516
Alexa Fluor® 488	AF488	Green	495	519
Tetramethylrhodamine	TAMRA	Red-Orange	546	580
Cy3™	Cy3	Red-Orange	550	570
Alexa Fluor® 555	AF555	Red-Orange	555	565
R-phycoerythrin	RPE	Red	480/546/565	578
Texas Red®	TR	Red	583	603
Cy5™	Cy5	Deep Red*	640	670
Alexa Fluor® 647	AF647	Deep Red*	650	668

*Not visible with use of filter set. For use with flow cytometry only.

**If you do not see a specific fluorochrome listed, please let us know.

Monoclonal antibody kits for clinical diagnosis (veterinary purposes only) are available labeled with fluorescein only. These kits are designed for use in direct immunofluorescence with stool specimen smears prepared on microscope slides. They are also offered as combined and individual antibody kits, as well as in reagent-only and comprehensive formats.

Sporo-Glo (A600) is a polyclonal fluorescent antibody kit that is now widely used in the detection of in vitro-reproducing stages of *Cryptosporidium* for determination of oocyst viability.

Waterborne™ products include highly purified bulk, and flow cytometrically counted, parasite preparations. The stock of waterborne pathogens includes cysts, oocysts, and spores of *Giardia lamblia*, *Cryptosporidium parvum*, *Encephalitozoon intestinalis* (also, *E. cuniculi* and *E. hellem*), *Cryptosporidium muris*, and *Giardia muris*. These organisms may be prepared in a phosphate-buffered saline with antibiotics and 0.01% Tween 20, or 5% formalin with 0.01% Tween 20. We can prepare parasites in an alternative solution, if requested.

Quality Control Standards (**AccuSpike™ -IR**) of *Giardia lamblia* and *Cryptosporidium parvum* are flow cytometrically enumerated preparations available with gamma-irradiated organisms in a solution of deionized water with 0.01% Tween 20.

IMS (immunomagnetic separation) particles are now available for use in the capture and isolation of *Giardia* spp. cysts and *Cryptosporidium* spp. oocysts. The beads are provided as a monodisperse, stable suspension of super-paramagnetic particles that measure approximately 1.4-1.6 μ m in diameter.

Waterborne's line of laboratory supplies for immunofluorescence testing includes buffers, counterstain, mounting media, chemically treated multi-well slides, and DAPI.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

Approvals / Validation of Detection Kits

Agency	Methods	Product Description	Item Numbers
1. US EPA	1622	Aqua-Glo™ G/C Direct	<ul style="list-style-type: none"> A100FLK A100FLR-1X A100FLR-20X
		Crypt-a-Glo™	<ul style="list-style-type: none"> A400FLK A400FLR-1X A400FLR-20X
		AccuSpike™ -IR	<ul style="list-style-type: none"> PACIR3 PACIR6 PACIR12
2. US EPA	1623	Aqua-Glo™ G/C Direct	<ul style="list-style-type: none"> A100FLK A100FLR-1X A100FLR-20X
		Giardi-a-Glo™	<ul style="list-style-type: none"> A300FLK A300FLR-1X A300FLR-20X
		Crypt-a-Glo™	<ul style="list-style-type: none"> A400FLK A400FLR-1X A400FLR-20X
		AccuSpike™ -IR	<ul style="list-style-type: none"> PACIR3 PACIR6 PACIR12
3. Russian Government	MYK 4.2.2314-08	Aqua-Glo™ G/C Direct	<ul style="list-style-type: none"> A100FLK
4. Russian Government	MYK 4.2.2959-11	Aqua-Glo™ G/C Direct	<ul style="list-style-type: none"> A100FLK
		G/C Combo-Grab™	<ul style="list-style-type: none"> IMS100-20
		Giardia-Grab™	<ul style="list-style-type: none"> IMS300-20
		Crypto-Grab™	<ul style="list-style-type: none"> IMS400-20
5. US EPA	1623.1	Aqua-Glo™ G/C Direct	<ul style="list-style-type: none"> A100FLK A100FLR-1X A100FLR-20X
		Giardi-a-Glo™	<ul style="list-style-type: none"> A300FLK A300FLR-1X A300FLR-20X
		Crypt-a-Glo™	<ul style="list-style-type: none"> A400FLK A400FLR-1X A400FLR-20X
		AccuSpike™ -IR	<ul style="list-style-type: none"> PACIR3 PACIR6 PACIR12

How to Place an Order

1. Current Billing and Shipping information: clients must have a current Customer Information sheet on file or download a copy from our website, www.waterborneinc.com/ordering.html. You may return the customer information sheet with your order via phone, fax, email or mail.
2. Method of payment: purchase order, credit card (Visa or Mastercard) or bank wire. A bank wire fee will be assessed for international bank transfers.
3. Product catalog number, description, quantity
4. If ordering **Live Infectious Agents**, an import permit may be applicable. Clients are responsible for providing valid, signed import permits or other official documents, if required by the country of the recipient with each order. Waterborne™, Inc. is not responsible for keeping a copy of the import permit on file.
 - Infectious agents can only be shipped to clients located at an established research or testing institution, using a purchase order from that institution and an address located at that institution.
5. Broker Information, if applicable.

Waterborne™, Inc. reserves the right to any order on hold until all requested information is collected.



Terms

Net **30** days. Payments may be **wired** directly to our bank. Please inquire as to our bank wiring information. We appreciate your prompt payment.

Note: Certain destinations may require pre-payment by bank wiring or other means.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

General Shipping Information

Waterborne™, Inc. currently uses Federal Express for all shipments, unless otherwise specified.

If requested, Waterborne™ can ship using a customer's account (DHL, FedEx, UPS, or TNT).

Shipping rates are subject to change at any time. Please inquire about the current charge for your location.



Domestic Shipping	International Shipping
All orders are shipped FedEx priority overnight with frozen gel packs, unless otherwise specified.	All orders are shipped CIF (International Express Priority) with frozen gel packs, unless otherwise specified. Include broker information at the time of the order.
<i>If the shipping charges are billed to a customer account, a handling fee will be assessed.</i>	
International handling fees do not include international duty, value-added tax (VAT), GST tax, or customs-clearing charges that will be charged directly to the customer once the package enters the country. <i>Waterborne™, Inc. will only accept responsibility for duties and taxes when specifically requested at the time of the order.</i>	
Domestic Handling Fee for Packages with Non-infectious Goods: \$15.00	International Handling Fee for Packages with Non-infectious Goods: \$30.00
Domestic Handling Fee for Packages with Infectious Goods: \$35.00	International Handling Fee for Packages with Infectious Goods: \$50.00
<p><u>Infectious Agent Packaging Fee</u> A surcharge must be assessed for all orders of live, infectious parasites due to UN-approved requirements for special packaging and handling of infectious agents.</p>	
<p><u>NOTE: These charges are in addition to the basic shipping costs.</u></p>	

About Waterborne™ Antibody Reagents

The monoclonal antibodies used in Waterborne™ kits come from hybridoma cell lines that have been produced by Waterborne™, Inc. (except for the anti-microsporidia antibody reagents, from hybridoma cell lines licensed to Waterborne™, Inc. by an academic institution). The polyclonal antibodies are also produced at Waterborne™. We continue to purify the antibodies from ascites or serum, conjugate the antibodies to fluorochromes, and quality-test all conjugated antibodies at the Waterborne laboratory. This allows us to control all aspects of the production process, which in turn ensures a high standard of quality control and consistency of products provided to our many customers around the world.

Affinity

Our antibodies have a high affinity and will not leach off cells for several days, weeks, or months, if used in conjunction with our No-Fade™ Mounting Medium or Elvanol No-Fade™ Mounting Medium, and stored in a cool, dark location. Storage of prepared slides allows repeated viewing of slides and the opportunity to compare results from samples over an extended period of time. In addition to extended viewing in one lab, slides can be shipped for comparison between collaborating laboratories.

Intensity

The intensity of the reaction is strong, leaving little room for incorrect identification and/or false positive reporting. For more complex sample matrices or fecal smears, we recommend using BlockOut™ counterstain. BlockOut™ enhances the apparent intensity of reacting organisms by producing a strong red background against which the green specific reaction stands out. (BlockOut™ will fluoresce red when viewed under a fluorescein filter set. It is ideal for use with fluorescein-labeled antibodies.)

Specificity








The anti-*Giardia* monoclonal antibody is genus-specific and binds strongly and specifically with cysts of all species of *Giardia*. It is reactive with both live and formalinized cysts. The anti-*Cryptosporidium* monoclonal antibody is also genus-specific and binds strongly to oocysts of all species of *Cryptosporidium*. (There is, however, occasional cross-reactivity between this antibody and certain species of golden algae. In general, most investigators have reported that they can easily distinguish between the algae and *Cryptosporidium* oocysts.) All Aqua-Glo™, Giardi-a-Glo™, and Crypt-a-Glo™ products were created with these two antibodies to ensure strong, specific reactions. The IMS Grab™-beads are also produced using the above antibodies.

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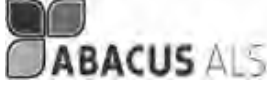



Distributors of Waterborne™, Inc. Products

Due to the nature of our products and the high variability of international import regulations, we recommend contacting a distributor if one is located within your country. If a distributor is not located within your country, please contact us directly. If your company is interested in distributing Waterborne™ products, please contact us.

Argentina	<p style="text-align: center;">Eurolab</p> 	<p>Paraguay 2452 5° B, (C1121ABN) Buenos Aires, Argentina TEL: (54-11) 4966-1818 FAX: (5411) 4966-1818 int.105 E-mail: euroventas@eurolabsa.com.ar Website: www.eurolabsa.com.ar</p>
Belgium/ Luxembourg	<p style="text-align: center;">Selinion Medical</p> 	<p>P.O. Box 1342 1000 Brussels, Belgium TEL: 32+ (0) 2 503 29 12 FAX: 32+ (0) 416 60 80 E-mail: info@selinion.com Website: www.selinion.com</p>
Brazil	<p style="text-align: center;">Sovereign Brasil</p> 	<p>Rua Guaipá, 179 – Alto da Lapa São Paulo, Brasil Cep: 05089-001 TEL: 55 11 3838-2499 FAX: 55 11 3838-2498 E-mail: vendas@vwr.com Website: www.sovnet.com.br</p>
Canada	<p style="text-align: center;">Cedarlane®</p> 	<p>4410 Paletta Court Burlington, ON Canada L7L 5R2 TEL: 289-288-0001 Toll-Free: 800-268-5058 E-mail: general@cedarlanes.com Website: www.cedarlanes.com</p>
China	<p style="text-align: center;">Beijing Anapure Bioscientific Co., Ltd.</p> 	<p>Suite 20A, Grand Orient International Mansion, No.2, Dong Zhi Men Wai Xiao Jie, Dongcheng District, Beijing, 100027 P.R. China TEL: +86-10-8447-8816 FAX: +86-10-8447-8830</p>
China	<p style="text-align: center;">Bio-Gene Technology, Ltd.</p> 	<p>Unit 16, 20/F, Grandtech Centre, 8 on Ping, Shatin Hong Kong, PRC TEL: +852-2646-6101 FAX: +852-2686-8806 E-mail: info@bio-gene.com.hk</p>

<p>China</p>	<p>Gathersun International Ltd</p> 	<p>Unti 706, Harry Centre, 49 Au Pui Wan Street Fo Tan, N.T., Hong Kong TEL: +852-6959 4640 (Hong Kong) TEL: +86-10-5285 9583 (Beijing) FAX: +852-3124 1183 Email: info@gathersun.com Website: www.gathersun.com</p>
<p>Colombia</p>	<p>Aqualab Ltda</p> 	<p>Carrera 10, No. 97-14 Bogota, Colombia TEL: +57 1 610 8597 FAX: +57 1 618 4062 E-mail: aqualab_ltда@etb.net.co E-mail: 0186aqua@etb.net.co</p>
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<p>Israel</p>	<p>New Biotechnology, Ltd. (NBT)</p> 	<p>P.O. Box 8662, 3 Mekor Haim st. Jerusalem 91086 Israel TEL: +972-2-6732001 FAX: +972-2-6731611 E-mail: nbtsales@nbt ltd.com Website: www.nbt ltd.com</p>
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<p>Jordan</p>	<p>Envirolife</p> 	<p>PO Box 1707 Amman, Telaa Al-Ali Abdull Raheem Mullabbas Bldg (Audi Bldg) Al-Madinah Al-Monawarech Str. Amman 11953, Jordan TEL: +962-6-5529530 FAX: +962-6-5529535 Email: envirolife@wanadoo.jo Website: www.envirolife.com</p>

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

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<p>Malaysia</p>	<p>U.C. Sdn Bhd</p> 	<p>Suite 8-1-8 Level 1, Menara Mutiara Bangsar Jalan Liku, Off Jalan Riong Bangsar, 59100 Kuala Lumpur, Malaysia TEL: 03-22820162 FAX: 03-22840470 Email: info@unicoll.com.sg</p>
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<p>Romania</p>	<p>SC MEDICLIM SRL</p> 	<p>Str. Matei Basarab no. 47, Sector 3 Postal Code 030671 Bucharest, Romania TEL: 00 40 21 322 64 67 FAX: 00 40 21 320 06 60 Email: office@mediclim.ro Website: www.mediclim.ro</p>
<p>Russia</p>	<p>StyLab LLC</p> 	<p>Zvenigorodskoye shosse 5, VNIIVSGE 123022 Moscow, Russia TEL: +7 495 707 28 68, 256 23 13 FAX: +7 495 70728 68, 256 23 13 GSM: +7 495 729 17 04 E-mail: stylab@yandex.ru Website: www.stylab.ru</p>

<p>Singapore</p>	<p>Unison Collaborative Pte Ltd 400 Orchard Road, #12-05 Orchard Towers Singapore 238875 TEL: (65) 6734-5577 FAX: (65) 6734-4181 Email: info@unicoll.com.sg</p> 
<p>Spain</p>	<p>Iberlab – Soluciones para laboratorios, SL</p>  <p>Plaza de América, n.º 2 - Poprtal Oficinas Piso 2 - Local 2ª 36211 Vigo – Pontevedra, Spain TEL: (+34) 886 137 284 FAX: (+34) 886 137 284 E-mail: iberlab@iberlab.com Website: www.iberlab.com</p>
<p>The Netherlands</p>	<p>Selinion Medical</p>  <p>P.O. Box 1722 5200 BT 's-Hergogenbosch The Netherlands TEL: 31+ (0) 73 850 93 05 FAX: 31+ (0) 73 844 00 44 E-mail: info@selinion.com Website: www.selion.com</p>
<p>Turkey</p>	<p>Pratika Medikal ve Kimyevi Maddeler San. Tic. Ltd. Sti.</p>  <p>Vatan Cad. No: 6 / 14 34403 Caglayan – Istanbul, Turkey TEL: +90 212 234 67 97 FAX: +90 212 234 67 99 E-mail: pratika@superonline.com Website: www.pratika.com.tr</p>

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

IFA Detection Kits for Water Testing

Product	Description
A100 Aqua-Glo™ G/C Direct	Direct, simultaneous detection of <i>Giardia</i> cysts & <i>Cryptosporidium</i> oocysts.
A200 Aqua-Glo™ G/C Indirect	Indirect, simultaneous detection of <i>Giardia</i> cysts & <i>Cryptosporidium</i> oocysts.
A300 Giardi-a-Glo™	Direct detection of <i>Giardia</i> cysts.
A400 Crypt-a-Glo™	Direct detection of <i>Cryptosporidium</i> oocysts.
A500 Mur-a-Glo™	Direct detection of <i>Giardia muris</i> ONLY. (species-specific)
A600 Sporo-Glo™	Direct detection of <i>Cryptosporidium</i> sporozoites & other intracellular life cycles stages.
A700 Microspor-FA™	Direct detection of Microsporidial spores. (<i>E. intestinalis</i> , <i>E. hellem</i> , <i>E. cuniculi</i>)
A710 MicrosporUltra-FA™	Direct detection of Microsporidial spores. (<i>E. intestinalis</i> , <i>E. hellem</i> , <i>E. cuniculi</i> , and <i>E. bienusi</i>)
A720 Bienusi-Glo™	Direct detection of Microsporidial spores. (<i>E. bienusi</i> ONLY)
A800 Lambli-a-Glo™	Direct detection of <i>Giardia lamblia</i> cysts ONLY. (species-specific)
A900 Troph-o-Glo™	Direct detection of <i>Giardia lamblia</i> trophozoites.

Not sure which kit is right for you?
Contact us and we'll help you decide.

Detection Kits for Diagnostic Purposes

Product	Description
ST101 Cyst-a-Glo™	Direct, simultaneous detection of <i>Giardia</i> cysts & <i>Cryptosporidium</i> oocysts.
ST102 Giardi-a-Glo™	Direct detection of <i>Giardia</i> cysts.
ST103 Crypt-a-Glo™	Direct detection of <i>Cryptosporidium</i> oocysts.
ST112 Troph-o-Glo™	Direct detection of <i>Giardia lamblia</i> trophozoites.
ST104 Microspor-FA™	Direct, simultaneous detection of spores of <i>E. intestinalis</i> , <i>E. cuniculi</i> , <i>E. hellem</i> .
ST114 MicrosporUltra-FA™	Direct, simultaneous detection of spores of the following: <i>E. intestinalis</i> , <i>E. cuniculi</i> , <i>E. hellem</i> , and <i>E. bienusi</i> .
ST124 Bienusi-Glo™	Direct, simultaneous detection of spores of <i>E. bienusi</i> .

Available Fluorochromes

Fluorochromes	Waterborne™, Inc. Fluorochrome Code	Fluorescence Colors	Maximum λ (nm)	
			Excitation	Emission
Aminomethylcoumarin	AMCA	Blue	352	448
AlexaFluor®350	AF350	Blue	346	442
Fluorescein (FL-5-EX)	FL	Green	492	516
Alexa Fluor® 488	AF488	Green	495	519
Tetramethylrhodamine	TAMRA	Red-Orange	546	580
Cy3™	Cy3	Red-Orange	550	570
Alexa Fluor® 555	AF555	Red-Orange	555	565
R-phycoerythrin	RPE	Red	480/546/565	578
Texas Red® (Sulforhodamine 101)	TR	Red	583	603
Cy5™	Cy5	Deep Red*	640	670
Alexa Fluor® 647	AF647	Deep Red*	650	668

*Not visible with use of filter set. For use with flow cytometry only.

**If you do not see a specific fluorochrome listed, please let us know.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

Environmental Kits for Water Testing

Most of our kits are available in several formats depending on how many tests you would like to perform and what additional components may be needed. These formats go by the designations indicated in the chart below, **K**, **R-1X**, or **R-20X**.

Comprehensive Kits	Reagent-Only Kits
K	R-1X
<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • Positive control*, 1.0 mL • No-Fade™ Mounting Medium, 3.5 mL • Block-Out™ Counterstain, 3.5 mL • 1X SureRinse™ wash buffer, 50 mL • SuperStick™ Slides, 2-well, 1 box, 40 slides • 5000x DAPI, 0.4 mL • 75+ assays 	<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • Positive control*, 1.0 mL • 75+ assays
	<ul style="list-style-type: none"> • 20x concentrated antibody reagent, 20 mL • Positive control*, 1.0 mL • Dilution/Blocking Buffer, 20 mL • No-Fade™ Mounting Medium, 3.5 mL • 400+ assays

*The G/C Positive Control (PC101) which is included in the A100, A300, A400, and A800 kits consists of ~2x10⁵ cysts of *Giardia lamblia* and ~2x10⁵ oocysts of *Cryptosporidium parvum* in 1 mL buffered formaldehyde solution.

The number of organisms in the positive control is not exact and should not be used for sample recovery determination.



1. Combined Antibody Kits

Combined fluorescent antibodies for the simultaneous detection of *Giardia* and *Cryptosporidium*.

OUR MOST POPULAR KITS
AQUA-GLO™ SERIES
1-1. Direct, Simultaneous IFA Detection Kits, Single Fluorochrome
A100FL. Aqua-Glo™ G/C Direct, Fluorescein label
US EPA validated for use in Method 1623

Direct, fluorescein-labeled, double monoclonal antibody solution for simultaneously detecting *Giardia lamblia* cysts and *Cryptosporidium parvum* oocysts by direct immunofluorescence. Applicable to IMS and flow cytometric methods, among others. All components included in kits are listed on previous page.

<u>Product Number</u>	<u>Product Description</u>
A100FLK	Aqua-Glo™ G/C Direct, FL, Comprehensive Kit
A100FLR-1X	Aqua-Glo™ G/C Direct, FL, 1x conc., Reagent Only
A100FLR-20X	Aqua-Glo™ G/C Direct, FL, 20x conc., Reagent Only

A100FLACK. Aqua-Glo™ G/C Direct, Fluorescein label, with AccuSpike™ -IR **US EPA validated for use in Method 1623**

A100FLK (above) plus AccuSpike™ -IR PACIR12 in one kit.

The A100FLACK is the A100FLK Kit described above plus 12 vials of flow-counted quality control standards (AccuSpike™ -IR). For more information on AccuSpike™ -IR, please see page 38. Additional items, such as slides or buffers, may be purchased separately.

<u>Product Number</u>	<u>Product Description</u>
A100FLACK	Aqua-Glo™ G/C Direct, FL, Comprehensive Kit with AccuSpike™ -IR

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

A100Cy3. Aqua-Glo™ G/C Direct, Cy3 label

Antibodies same as above. Cy3 dye labeled dual monoclonal antibody solution for the detection of *Giardia lamblia* cysts and *Cryptosporidium parvum* oocysts by direct immunofluorescence.

<u>Product Number</u>	<u>Product Description</u>
A100Cy3K	Aqua-Glo™ G/C Direct, Cy3, Comprehensive Kit
A100Cy3R-1X	Aqua-Glo™ G/C Direct, Cy3, 1x conc., Reagent Only
A100Cy3R-20X	Aqua-Glo™ G/C Direct, Cy3, 20x conc., Reagent Only

1-2. Direct, Simultaneous Detection Kits, Multi-Fluorochrome**A100DF. Aqua-Glo™ G/C Direct, Dual Fluorochrome, FL/Cy3**

An antibody solution consisting of a monoclonal antibody to *Giardia* and a monoclonal antibody made against *Cryptosporidium*, each labeled with a different fluorochrome. The monoclonal antibody to *Giardia* is labeled with Cy3*, while the antibody to *Cryptosporidium* is labeled with fluorescein. The contrasting fluorochromes allow quick differentiation between *Giardia* cysts and *Cryptosporidium* oocysts. *Other fluorochromes can be substituted for Cy3.

Note: This kit requires a fluorescein filter set and a rhodamine filter set.

<u>Product Number</u>	<u>Product Description</u>
A100DFK	Aqua-Glo™ G/C Direct, Dual Fluorochrome, Comprehensive Kit
A100DFR-1X	Aqua-Glo™ G/C Direct, Dual Fluorochrome, 1x conc., Reagent Only
A100DFR-20X	Aqua-Glo™ G/C Direct, Dual Fluorochrome, 20x conc., Reagent Only

2. Individual Antibody Kits

Individual antibody reagent kits for the detection of a single microorganism group.

2-1. Anti-*Giardia* cysts

A300. Giardi-a-Glo™

US EPA validated for use in Method 1623

This monoclonal antibody binds strongly and very specifically to cysts of all *Giardia* species tested to date. It is reactive with live and formalinized cysts and ready to use in all methods, including IMS methodology and flow cytometry. See fluorochrome chart on page 17.

<u>Product Number</u>	<u>Product Description</u>
A300FLK	Giardi-a-Glo™, FL, Comprehensive Kit
A300FLR-1X	Giardi-a-Glo™, FL, 1x conc., Reagent Only
A300Cy3R-1X	Giardi-a-Glo™, Cy3, 1x conc., Reagent Only
A300BIOT-R-1X	Giardi-a-Glo™, BIOT, 1x conc., Reagent Only
A300FLR-20X	Giardi-a-Glo™, FL, 20x conc., Reagent Only
A300Cy3R-20X	Giardi-a-Glo™, Cy3, 20x conc., Reagent Only
A300BIOT-R-20X	Giardi-a-Glo™, BIOT, 20x conc., Reagent Only

The following kits are available per request.

A300AMCA-R-20X	Giardi-a-Glo™, AMCA, 20x conc., Reagent Only
A300AF350-R-20X	Giardi-a-Glo™, AF350, 20x conc., Reagent Only
A300AF488-R-20X	Giardi-a-Glo™, AF488, 20x conc., Reagent Only
A300TAMRA-R-20X	Giardi-a-Glo™, TAMRA, 20x conc., Reagent Only
A300AF555-R-20X	Giardi-a-Glo™, AF555, 20x conc., Reagent Only
A300RPE-R-20X	Giardi-a-Glo™, RPE, 20x conc., Reagent Only
A300TR-R-20X	Giardi-a-Glo™, TR, 20x conc., Reagent Only
A300Cy5-R-20X	Giardi-a-Glo™, Cy5, 20x conc., Reagent Only
A300AF647-R-20X	Giardi-a-Glo™, AF647, 20x conc., Reagent Only

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

2-2. Anti-*Cryptosporidium* oocysts

A400. Crypt-a-Glo™

US EPA validated for use in Methods 1622 & 1623

The Crypt-a-Glo™ reagent contains a monoclonal antibody that shows strong reactivity with oocysts of *Cryptosporidium* species. It is reactive with live and formalinized oocysts and it is ready for use in all methods, including IMS methodology and flow cytometry. See fluorochrome chart on page 17.

<u>Product Number</u>	<u>Product Description</u>
A400FLK	Crypt-a-Glo™, FL, Comprehensive Kit
A400FLR-1X	Crypt-a-Glo™, FL, 1x conc., Reagent Only
A400Cy3R-1X	Crypt-a-Glo™, Cy3, 1x conc., Reagent Only
A400BIOT-R-1X	Crypt-a-Glo™, BIOT, 1x conc., Reagent Only
A400FLR-20X	Crypt-a-Glo™, FL, 20x conc., Reagent Only
A400Cy3R-20X	Crypt-a-Glo™, Cy3, 20x conc., Reagent Only
A400BIOT-R-20X	Crypt-a-Glo™, BIOT, 20x conc., Reagent Only

The following kits are available per request.

A400AMCA-R-20X	Crypt-a-Glo™, AMCA, 20x conc., Reagent Only
A400AF350-R-20X	Crypt-a-Glo™, AF350, 20x conc., Reagent Only
A400AF488-R-20X	Crypt-a-Glo™, AF488, 20x conc., Reagent Only
A400TAMRA-R-20X	Crypt-a-Glo™, TAMRA, 20x conc., Reagent Only
A400AF555-R-20X	Crypt-a-Glo™, AF555, 20x conc., Reagent Only
A400RPE-R-20X	Crypt-a-Glo™, RPE, 20x conc., Reagent Only
A400TR-R-20X	Crypt-a-Glo™, TR, 20x conc., Reagent Only
A400Cy5-R-20X	Crypt-a-Glo™, Cy5, 20x conc., Reagent Only
A400AF647-R-20X	Crypt-a-Glo™, AF647, 20x conc., Reagent Only

2-3. Anti-*Giardia muris* cysts

A500. Mur-a-Glo™

This kit includes an IgG₁ monoclonal antibody that is **species-specific** and reactive only with cysts of *Giardia muris*. **This antibody will not bind to cysts of *Giardia lamblia***. It binds best to non-formalinized cysts, but reacts well with cysts that have been stored in 2% (or less) formalin or 0.8% (or less) paraformaldehyde. Shows cross-reactivity with cysts of *Spironucleus muris* – a close relative of *G. muris*.

<u>Product Number</u>	<u>Product Description</u>
A500FLR-1X	Mur-a-Glo™, FL, 1x conc., Reagent Only
A500Cy3R-1X	Mur-a-Glo™, Cy3, 1x conc., Reagent Only

- Mur-a-Glo™ positive control consists of ~2x10⁵ cysts of *Giardia muris* in 1 mL of a buffered formaldehyde solution. Positive control included with Microspor-FA™ consists of ~2x10⁵ spores of *Encephalitozoon intestinalis* in 1 mL of a buffered formaldehyde solution.

2-4. Anti-*C. parvum* sporozoites (& other intracellular lifecycle stages)

A600. Sporo-Glo™

This reagent consists of a polyclonal IgG antibody made to sporozoites of *Cryptosporidium parvum*. It is essential for use in the Focus-Detection Method* (FDM) for evaluating viability of oocysts using cell culture in sterile well-slides with mammalian cell monolayers. Sporo-Glo™ is strongly reactive with all in vitro intracellular reproductive stages of *Cryptosporidium parvum*.

<u>Product Number</u>	<u>Product Description</u>
A600FLR-1X	Sporo-Glo™, FL, 1x conc., Reagent Only
A600Cy3R-1X	Sporo-Glo™, Cy3, 1x conc., Reagent Only
A600BIOT-R-1X	Sporo-Glo™, Biotin, 1x conc., Reagents Only

A600FLR-20X	Sporo-Glo™, FL, 20x conc., Reagent Only
A600Cy3R-20X	Sporo-Glo™, Cy3, 20x conc., Reagent Only
A600BIOT-R-20X	Sporo-Glo, Biotin, 20x conc., Reagents Only

*Information on the Focus Detection Method (FDM) is available on request.

* Sporo-Glo™ does not include positive control. We recommend that a fresh preparation produced by the investigator be used as positive control

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

2-5. Anti-Microsporidial (*Encephalitozoon*) Species

A700. Microspor-FA™

The antibody reagent in Microspor-FA™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Encephalitozoon* (=Septata) *intestinalis* by direct immunofluorescence. It is also strongly reactive with *E. cuniculi* and *E. hellem*. **It is not reactive with *E. bienusi*.**

<u>Product Number</u>	<u>Product Description</u>
A700FLR-1X	Microspor-FA™, FL, 1x conc., Reagent Only
A700Cy3R-1X	Microspor-FA™, Cy3, 1x conc., Reagent Only
<hr/>	
A700FLR-20X	Microspor-FA™, FL, 20x conc., Reagent Only
A700Cy3R-20X	Microspor-FA™, Cy3, 20x conc., Reagent Only

* Microspor-FA™ positive control consists of ~2x10⁵ spores of *Encephalitozoon intestinalis* in 1 mL of a buffered formaldehyde solution.

2-6. Anti-Microsporidial (*Encephalitozoon* & *Enterocytozoon*) species

A710. MicrosporUltra-FA™

The antibody reagent in MicrosporUltra-FA™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Encephalitozoon* (=Septata) *intestinalis* and *Enterocytozoon bienusi* by direct immunofluorescence. It is also strongly reactive with *E. cuniculi* and *E. hellem*.

<u>Product Number</u>	<u>Product Description</u>
A710FLR-1X	MicrosporUltra-FA™, FL, 1x conc., Reagent Only
A710Cy3R-1X	MicrosporUltra-FA™, Cy3, 1x conc., Reagent Only
<hr/>	
A710FLR-20X	MicrosporUltra-FA™, FL, 20x conc., Reagent Only
A710Cy3R-20X	MicrosporUltra-FA™, Cy3, 20x conc., Reagent Only

* MicrosporUltra-FA™ positive control consists of 2 vials, the first including ~2x10⁵ spores of *Encephalitozoon intestinalis* in 1 mL of a buffered formaldehyde solution and the second including 1 mL of *Enterocytozoon bienusi* positive fecal material in a buffered formaldehyde solution.

2-7. Anti-Microsporidial (*Enterocytozoon*) species

A720. **Bienusi-Glo™**

The antibody reagent in Bienusi-Glo™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Enterocytozoon bienusi* by direct immunofluorescence. Available with the following labels:

<u>Product Number</u>	<u>Product Description</u>
A720FLR-1X	Bienusi-Glo™, FL, 1x conc., Reagent Only
A720Cy3R-1X	Bienusi-Glo™, Cy3, 1x conc., Reagent Only

2-7. Anti-Microsporidial (*Enterocytozoon*) species continued

A720. **Bienusi-Glo™** (continued)

<u>Product Number</u>	<u>Product Description</u>
A720FLR-20X	Bienusi-Glo™, FL, 20x conc., Reagent Only
A720Cy3R-20X	Bienusi-Glo™, Cy3, 20x conc., Reagent Only

* Bienusi-Glo™ positive control consists of 1 mL of *Enterocytozoon bienusi* positive fecal material in a buffered formaldehyde solution.

2-8. Anti-*Giardia lamblia* cysts

A800. **Lambli-a-Glo™**

This IgG₁ monoclonal antibody is **species-specific** and reactive only with cysts of *Giardia lamblia*. It does not react with *G. muris*, *G. microti*, or *G. ondatrae*, for example. It is reactive with live and formalinized cysts and ready to use in all methods, including IMS methodology. Some beaver-derived isolates have proven non-reactive. Available with the following labels:

<u>Product Number</u>	<u>Product Description</u>
A800FLR-1X	Lambli-a-Glo™, FL, 1x conc., Reagent Only
A800Cy3R-1X	Lambli-a-Glo™, Cy3, 1x conc., Reagent Only

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

2-9. Anti-*Giardia lamblia* trophozoites

A900. Troph-o-Glo™

The reagent in this kit contains an IgG polyclonal antibody made against *Giardia lamblia* trophozoites. This product is ideal for immunofluorescence detection of trophozoites. Troph-o-Glo™ can also be used in conjunction with the clinical kits ST101 and ST102 for detection of trophozoites and cysts in stool specimens.

<u>Product Number</u>	<u>Product Description</u>
A900FLR-1X	Troph-o-Glo™, FL, 1x conc., Reagent Only
A900Cy3R-1X	Troph-o-Glo™, Cy3, 1x conc., Reagent Only

- Troph-o-Glo™ does not include positive control. We recommend that a fresh preparation produced by the investigator be used as positive control
-

Clinical Kits for Diagnostic Purposes

For veterinary research purposes only. Kits come in two formats, K (Comprehensive kits) and R (Reagent-Only).

K (Comprehensive Kits) include:	R-1X (Reagent-Only Kits) include:
<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • Positive control*, 1.0 mL • No-Fade™ Mounting Medium, 3.5 mL • Block-Out™ Counterstain, 3.5 mL • 1x SureRinse™ wash buffer, 50 mL • SuperStick™ Slides, 2-well, 1 box, 40 slides • 75+ assays 	<ul style="list-style-type: none"> • 1x fluorescent antibody reagent, 3.5 mL • Positive control*, 1.0 mL • 75+ assays

* Cyst-a-Glo™, Giardi-a-Glo™, and Crypt-a-Glo™ positive control consists of ~2x10⁵ cysts of *Giardia lamblia* and ~2x10⁵ oocysts of *Cryptosporidium parvum* in 1 mL stool, preserved with buffered formaldehyde solution.

The number of organisms in the positive control is not exact.

1. Anti-*Giardia* cysts & *Cryptosporidium* oocysts

ST101. Cyst-a-Glo™

Fluorescein-labeled dual monoclonal antibody reagent for rapid, simultaneous detection of *Giardia lamblia* cysts and *Cryptosporidium parvum* oocysts in fecal smears by direct immunofluorescence.

<u>Product Number</u>	<u>Product Description</u>
ST101K	Cyst-a-Glo™, FL, Comprehensive Kit for Fecal Specimen
ST101R	Cyst-a-Glo™, FL, 1x conc., Reagent Only for Fecal Specimen

2. Anti-*Giardia* cysts

ST102. Giardi-a-Glo™

Fluorescein-labeled anti-*Giardia lamblia* cyst monoclonal antibody kit for rapid, direct immunofluorescence detection of *Giardia* cysts in fecal smears.

<u>Product Number</u>	<u>Product Description</u>
ST102K	Giardi-a-Glo™, FL, Comprehensive Kit for Fecal Specimen
ST102R	Giardi-a-Glo™, FL, 1x conc., Reagent Only for Fecal Specimen

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

3. Anti-Cryptosporidium oocysts

ST103. Crypt-a-Glo™

Fluorescein labeled anti-*Cryptosporidium parvum* oocyst monoclonal antibody kit for rapid, direct immunofluorescence detection of *Cryptosporidium* oocysts in fecal smears.

<u>Product Number</u>	<u>Product Description</u>
ST103K	Crypt-a-Glo™, FL, Comprehensive Kit for Fecal Specimen
ST103R	Crypt-a-Glo™, FL, 1x conc., Reagent Only for Fecal Specimen

4. Anti-G. lamblia trophozoites

ST112. Troph-o-Glo™

The reagent in this kit contains an IgG polyclonal antibody made against *Giardia lamblia* trophozoites. This product is ideal for detection of trophozoites in fecal smears by direct immunofluorescence.

<u>Product Number</u>	<u>Product Description</u>
ST112R	Troph-o-Glo™, FL, 1x conc., Reagent Only

* Troph-o-Glo™ does not include positive control. We recommend that a fresh preparation produced by the investigator be used as positive control.

5. Anti-Microsporidial species

ST104. Microspor-FA™

The antibody reagent in Microspor-FA™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Encephalitozoon (=Septata) intestinalis* by direct immunofluorescence. It is also strongly reactive with *E. cuniculi* and *E. hellem*. **It is not reactive with *E. bienusi*.**

<u>Product Number</u>	<u>Product Description</u>
ST104R	Microspor-FA™, FL, 1x conc., Reagent Only

* Microspor-FA™ positive control consists of ~2x10⁵ spores of *Encephalitozoon intestinalis* in 1 mL of a buffered formaldehyde solution.

5. Anti-Microsporidial species continued

ST114. MicrosporUltra-FA™

The antibody reagent in MicrosporUltra-FA™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Encephalitozoon (=Septata) intestinalis* and *Enterocytozoon bienusi* by direct immunofluorescence in fecal smears. It is also strongly reactive with *E. cuniculi* and *E. hellem*.

<u>Product Number</u>	<u>Product Description</u>
ST114K	MicrosporUltra-FA™, FL, Comprehensive Kit for Fecal Specimen
ST114R	MicrosporUltra-FA™, FL, 1x conc., Reagent Only for Fecal Specimen

* MicrosporUltra-FA™ positive control consists of 2 vials, the first including ~2x10⁵ spores of *Encephalitozoon intestinalis* in 1 mL of a buffered formaldehyde solution and the second including 1 mL of *Enterocytozoon bienusi* positive fecal material in a buffered formaldehyde solution.

ST124. Bienusi-Glo™

The antibody reagent in Bienusi-Glo™ contains a monoclonal IgG antibody for the detection of microsporidial spores of *Enterocytozoon bienusi* by direct immunofluorescence in fecal smears.

<u>Product Number</u>	<u>Product Description</u>
ST124R	Bienusi-Glo™, FL, Comprehensive Kit for Fecal Specimen

* Bienusi-Glo™ positive control consists of 1 mL of *Enterocytozoon bienusi* positive fecal material in a buffered formaldehyde solution.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

Lab Supplies

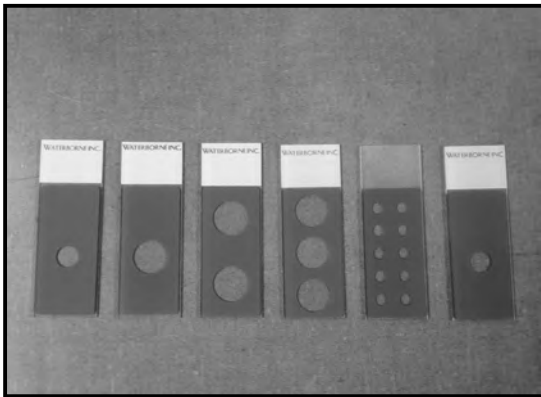
The following items may be purchased separately. Some laboratory supplies are already included in our comprehensive kits. See chart on page 18.



Dilution/Blocking Buffer

Diluent created to dilute the 20x-concentrated antibodies to a 1x working dilution. Buffer is optimal for background reduction and prolonging storage of the antibody reagent. Contains PBS buffer, pH 7.4, bovine serum albumin, and sodium azide (0.04%).

<u>Product Number</u>	<u>Product Description</u>
B100-20	Dilution/Blocking Buffer, 20 mL
B100-40	Dilution/Blocking Buffer, 40 mL



SuperStick™ Slides

Custom manufactured slides with chemically treated surface to maximize the adhesion of cysts, oocysts, spores, and other types of cells. Each slide has a green, Teflon-coated background surrounding the wells to ensure that the sample stays within the reaction well before and during drying. Each slide also has a super-frosted area at one end for writing with a pencil, pen or marker.

Ideal for use in US EPA Methods 1622 & 1623

<u>Product Number</u>	<u>Product Description</u>
S100-1-9MM	SuperStick™ Slides, 40/box, 1 well – 9 mm well
S100-1	SuperStick™ Slides, 40/box, 1 well – 14 mm well
S100-2	SuperStick™ Slides, 40/box, 2 wells – 15 mm wells
S100-3	SuperStick™ Slides, 40/box, 3 wells – 14 mm wells
S100-10	SuperStick™ Slides, 40/box, 10 wells – 5 mm wells

CellGrip™ Slides

Diagnostic slides with an adhesive-treated surface to increase the adhesion of cysts, oocysts, spores, and other types of cells. Slides have one 9 mm reaction well, a green hydrophobic, Teflon-coated background, and a super-frosted area at one end for writing with a pencil, pen or marker.

<u>Product Number</u>	<u>Product Description</u>
S100-1-CG	CellGrip™ Microscope Slides, 40/box, 1 well – 9 mm well

BlockOut™ Counterstain

Counterstain is provided in a convenient dropper bottle that holds 3.5 mL Evan's Blue solution in PBS with 0.04% sodium azide. Counterstain provides a reddish background to give contrast to the specific green fluorescein reaction and reduce background fluorescence. (BlockOut™ counterstain will fluoresce red when viewed under a fluorescein filter set.) Excellent for use with complex matrices in environmental samples and fecal smears to reduce non-specific fluorescence.

<u>Product Number</u>	<u>Product Description</u>
C101	BlockOut™ Counterstain

DAPI

A vial of 400 uL of 5000x concentrated (2 mg/mL) 4,6-diamidino-2-phenylindole (DAPI). This dye is required in Methods 1622 and 1623 for identification of *Giardia lamblia* and *Cryptosporidium parvum*. DAPI is used to stain the DNA in the nuclei of these organisms, which when viewed under UV light, the nuclei will fluoresce bright blue.

<u>Product Number</u>	<u>Product Description</u>
D101	DAPI

No-Fade™ Mounting Media

» **Standard No-Fade™ Mounting Medium**

This fade-retardant medium contains PBS, glycerol, formalin, and 2% DABCO. It is packaged in a 3.5 mL dropper bottle that releases approximately 45 uL per drop, enough medium for 75 applications when applying one drop per well. Ideal for repeated viewing of slides during short-term storage.



To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

<u>Product Number</u>	<u>Product Description</u>
M101	No-Fade™ Mounting Medium

»Formalin-Free No-Fade™ Mounting Medium

This fade-retardant medium contains PBS, glycerol and 2% DABCO. This medium **does not contain formalin** and is recommended for use in PCR genotyping. It is packaged in a 3.5 mL dropper bottle that releases approximately 45 uL per drop, enough medium for 75 applications when applying one drop per well.

<u>Product Number</u>	<u>Product Description</u>
M101FF	No-Fade™ Mounting Medium, Formalin-Free

»Elvanol No-Fade™ Mounting Medium

This medium is also fade-retardant and contains polyvinyl alcohol and DABCO. When allowed to dry overnight, Elvanol dries to a gelatinous, semi-solid film, allowing long-term storage and repeated viewing of immunofluorescent cells or tissue without messy leakage or drying out*. Elvanol mounting medium may occasionally need to be heated briefly to remove cloudiness. It is packaged in a 3.5 mL dropper bottle that releases approximately 45 uL per drop, enough medium for 75 applications when applying one drop per well.

<u>Product Number</u>	<u>Product Description</u>
M102	Elvanol No-Fade™ Mounting Medium

*Ideal for use with samples tested by collaborating laboratories. Slides can be shipped between laboratories for comparative viewing.

SureRinse™ Wash Buffer

This buffer was developed to rinse excess reagent from well slides after incubation with a sample. It is available as a 20X concentrated solution that yields 1 L of 1X working dilution.

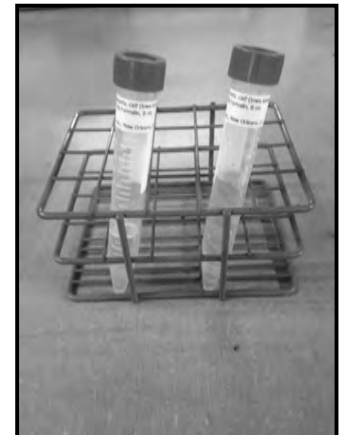
<u>Product Number</u>	<u>Product Description</u>
WB100	20X SureRinse™ Wash Buffer, 50 mL
WB101	1X SureRinse™ Wash Buffer, 50 mL

Parasite Preparations

Catalog Number	Microorganism	Production Schedule	Source	Infectious to Man
P101	<i>Giardia lamblia</i> H3 isolate	• Daily	• gerbils	✗
P102C P102M	<i>Cryptosporidium parvum</i> Iowa isolate	• Every 4-6 weeks • Every 4-6 weeks	• calves • mice	✗
P103C*	<i>Encephalitozoon cuniculi</i> Didier isolate	• As needed	• RK-13 cells	✗
P103H*	<i>Encephalitozoon hellem</i> Didier isolate	• As needed	• RK-13 cells	✗
P103I*	<i>Encephalitozoon intestinalis</i> Didier isolate	• As needed	• RK-13 cells	✗
P104*	<i>Cryptosporidium muris</i> RN66 rate isolate, Osaka, Japan	• As needed	• mice	
P105*	<i>Giardia muris</i> Roberts-Thomson isolate	• As needed	• mice	

For orders over 10/7 or special order items*, please give at least a 2 week lead-time.

- All preparations are guaranteed to be 95% - 99% purified. Each organism is purified by sucrose and percoll gradients and water washes, as needed.
- Each suspension is then viewed microscopically for the contamination by various other microorganisms. Some bacteria and yeast may be present in small numbers.
- Every preparation is accompanied by a Product Specification & Analysis Report/COA.



Parasites can be provided in 1 of 2 ways:

1. Live- standard preparation is PBS, antibiotics (antibiotics: penicillin, streptomycin, gentamicin, Amphotericin B) and 0.01% Tween20. Volume (1 mL – 50 mL) and storage solution can be customized (e.g. PBS only, d-H₂O ONLY, or d-H₂O/ antibiotics/ Tween20).

OR

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

2. Nonviable from

A.) Formalin- suspended in 5% formalin and 0.01% Tween20. Other storage solution options include lower/higher concentrations of formalin – 1%, 2.5%, 10%
→ **Not recommended if performing PCR**

B.) Heat Treatment*- (15 min, 70°C) to render organisms non-viable.

C.) Freeze Treatment*- Stored between -20°C and -15°C for 24 hours to render organisms non-viable.

D.) Custom treatments – Protocol provided by the investigator.

***\$50.00 additional fee for treatment.**

Each order must clearly state whether parasites should be prepared live in PBS, d-H₂O, or fixed in Formalin.

1. Bulk Parasite Preparations

»P101. Cysts of *Giardia lamblia**

Human isolate H-3, aka CH-3, passaged through gerbils.

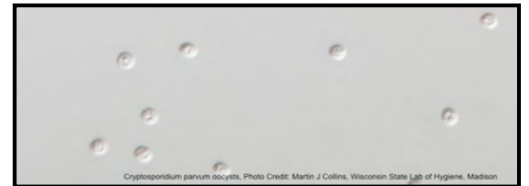


<u>Product Number</u>	<u>Product Description</u>
P101 @ 1x10/6	<i>Giardia lamblia</i> cysts, 1 million, in 4 mL
P101 @ 5x10/6	<i>Giardia lamblia</i> cysts, 5 million, in 8 mL
P101 @ 1x10/7	<i>Giardia lamblia</i> cysts, 10 million, in 8 mL
P101 @ 5x10/7	<i>Giardia lamblia</i> cysts, 50 million, in 8 mL
P101 @ 1x10/8	<i>Giardia lamblia</i> cysts, 100 million, in 8 mL

*Live cysts are guaranteed for 21 days from the date of shipment.

»P102C. Oocysts of *Cryptosporidium parvum**

Iowa isolate, bovine, from experimentally infected calves.



<u>Product Number</u>	<u>Product Description</u>
P102C @ 1x10/6	<i>Cryptosporidium parvum</i> oocysts, 1 million, in 4 mL
P102C @ 5x10/6	<i>Cryptosporidium parvum</i> oocysts, 5 million, in 8 mL
P102C @ 1x10/7	<i>Cryptosporidium parvum</i> oocysts, 10 million, in 8 mL
P102C @ 5x10/7	<i>Cryptosporidium parvum</i> oocysts, 50 million, in 8 mL
P102C @ 1x10/8	<i>Cryptosporidium parvum</i> oocysts, 100 million, in 8 mL
P102C @ 5x10/8	<i>Cryptosporidium parvum</i> oocysts, 500 million, in 8 mL
P102C @ 1x10/9	<i>Cryptosporidium parvum</i> oocysts, 1000 million, in 50 mL

*Live oocysts are guaranteed for 2 months from the shipment date.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

»**P102M.** Oocysts of *Cryptosporidium parvum**

Iowa isolate, bovine, passaged one-time through experimentally infected mice.

<u>Product Number</u>	<u>Product Description</u>
P102M @ 1x10/6	<i>Cryptosporidium parvum</i> oocysts, 1 million, in 4 mL
P102M @ 5x10/6	<i>Cryptosporidium parvum</i> oocysts, 5 million, in 8 mL
P102M @ 1x10/7	<i>Cryptosporidium parvum</i> oocysts, 10 million, in 8 mL
P102M @ 5x10/7	<i>Cryptosporidium parvum</i> oocysts, 50 million, in 8 mL
P102M @ 1x10/8	<i>Cryptosporidium parvum</i> oocysts, 100 million, in 8 mL
P102M @ 5x10/8	<i>Cryptosporidium parvum</i> oocysts, 500 million, in 8 mL

*Live oocysts are guaranteed for 2 months from the shipment date.

»**P103I.** Spores of *Encephalitozoon intestinalis*

Didier isolate, from culture with rabbit RK-13 cells.

Please Check Availability.

<u>Product Number</u>	<u>Product Description</u>
P103I @ 1x10/6	<i>Encephalitozoon</i> spores, 1 million, in 4 mL
P103I @ 5x10/6	<i>Encephalitozoon</i> spores, 5 million, in 8 mL
P103I @ 1x10/7	<i>Encephalitozoon</i> spores, 10 million, in 8 mL
P103I @ 5x10/7	<i>Encephalitozoon</i> spores, 50 million, in 8 mL
P103I @ 1x10/8	<i>Encephalitozoon</i> spores, 100 million, in 8 mL

*Live spores are guaranteed for 2 months from the shipment date.

»**P103C.** Spores of *Encephalitozoon cuniculi*

Didier isolate, from culture with rabbit RK-13 cells.

Please Check Availability.

<u>Product Number</u>	<u>Product Description</u>
P103C @ 1x10/6	<i>Encephalitozoon</i> spores, 1 million, in 4 mL
P103C @ 5x10/6	<i>Encephalitozoon</i> spores, 5 million, in 8 mL
P103C @ 1x10/7	<i>Encephalitozoon</i> spores, 10 million, in 8 mL
P103C @ 5x10/7	<i>Encephalitozoon</i> spores, 50 million, in 8 mL
P103C @ 1x10/8	<i>Encephalitozoon</i> spores, 100 million, in 8 mL

*Live spores are guaranteed for 2 months from the shipment date.

»**P103H.** Spores of *Encephalitozoon hellem*

Didier isolate, from culture with rabbit RK-13 cells.

Please Check Availability.

<u>Product Number</u>	<u>Product Description</u>
P103H @ 1x10/6	<i>Encephalitozoon</i> spores, 1 million, in 4 mL
P103H @ 5x10/6	<i>Encephalitozoon</i> spores, 5 million, in 8 mL
P103H @ 1x10/7	<i>Encephalitozoon</i> spores, 10 million, in 8 mL
P103H @ 5x10/7	<i>Encephalitozoon</i> spores, 50 million, in 8 mL
P103H @ 1x10/8	<i>Encephalitozoon</i> spores, 100 million, in 8 mL

*Live spores are guaranteed for 2 months from the shipment date.

»**P104.** Oocysts of *Cryptosporidium muris*

RN66 rat isolate from Osaka, Japan, passaged through mice.

Please Check Availability.

<u>Product Number</u>	<u>Product Description</u>
P104 @ 1x10/6	<i>Cryptosporidium muris</i> oocysts, 1 million, in 4 mL
P104 @ 5x10/6	<i>Cryptosporidium muris</i> oocysts, 5 million, in 8 mL
P104 @ 1x10/7	<i>Cryptosporidium muris</i> oocysts, 10 million, in 8 mL
P104 @ 5x10/7	<i>Cryptosporidium muris</i> oocysts, 50 million, in 8 mL
P104 @ 1x10/8	<i>Cryptosporidium muris</i> oocysts, 100 million, in 8 mL

*Live oocysts are guaranteed for 2 months from the shipment date.

»**P105.** Cysts of *Giardia muris*

Roberts-Thomson isolate, from infected mice.

Please Check Availability.

<u>Product Number</u>	<u>Product Description</u>
P105 @ 5x10/6	<i>Giardia muris</i> cysts, 5 million, in 8 mL
P105 @ 1x10/7	<i>Giardia muris</i> cysts, 10 million, in 8 mL
P105 @ 5x10/7	<i>Giardia muris</i> cysts, 50 million, in 8 mL
P105 @ 1x10/8	<i>Giardia muris</i> cysts, 100 million, in 8 mL
P105 @ 5x10/8	<i>Giardia muris</i> cysts, 500 million, in 50 mL

*Live cysts are guaranteed for 2 weeks from the shipment date.

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

2. Quality Control Suspensions

2-1. G/C Quality Control in Fixative

***Giardia* / *Cryptosporidium* Positive Control**

Positive Control is a mixture of *Giardia lamblia* cysts and *Cryptosporidium parvum* oocysts in a mixed aldehyde buffer. The concentration of this suspension is approximately 2x10e5 cysts and oocysts (each) per mL. These numbers are not exact and should not be used for sample recovery estimation.

<u>Product Number</u>	<u>Product Description</u>
PC101	G/C Positive Control
PCST101	G/C Positive Control in Stool
NCST101	Negative Stool Control

2-2. G/C Quality Control Standard

AccuSpike™ -IR: Flow Cytometrically Counted *Giardia* and *Cryptosporidium*.

AccuSpike™ -IR is a quality control standard for *Giardia* and *Cryptosporidium* testing. It is designed for use as the control spiking suspension in Methods 1622 and 1623 for the determination of percent recovery in Initial Precision and Recovery (IPR), Ongoing Precision and Recovery (OPR), and Matrix Spike (MS) tests.

Each AccuSpike™ -IR 1.5 mL polypropylene microtube contains flow cytometrically sorted *Giardia lamblia* cysts and *Cryptosporidium parvum* oocysts, 100 each, suspended in 0.75 mL reagent-grade water with 0.01% Tween 20, that have been inactivated and preserved by gamma irradiation. The internal structures of the cysts and oocysts are completely intact and easily identified, and the cells are fully reactive with antibody-coated immunomagnetic particles and fluorescent antibodies. AccuSpike™ -IR has a shelf life of 12 weeks.

This is a non-hazardous, non-infectious product. Although the organisms exhibit signs of viability (e.g., propidium iodide exclusion, excystability), they have been proven to be non-infectious for animal models and in vitro assays (FDM).

Custom flow-counted spikes are also available. Please inquire about prices.

<u>Product Number</u>	<u>Product Description</u>
PACIR3	AccuSpike™ -IR - 3 vials
PACIR6	AccuSpike™ -IR - 6 vials
PACIR12	AccuSpike™ -IR - 12 vials

IMS-Grab™ Beads

Immunomagnetic separation (IMS) is a method used to isolate cells from a complex sample, e.g. biological specimens, cell culture, or environmental matrices. Paramagnetic beads, coated with antibodies, will bind to antigens present on the surface of target cells. A magnet is then applied to the sample tube and the IMS particle-target cell complex is pulled toward the magnet, concentrating and isolating the target cells. Later, the IMS particles can be detached from the target cells, which can be visualized and identified through immunofluorescence and DIC microscopy.

Waterborne Grab™ beads are designed for use in the capture and isolation of *Giardia* spp. cysts, or *Cryptosporidium* spp. oocysts. The beads are provided as a monodisperse, stable suspension of super-paramagnetic particles that measure approximately 1.4-1.6 µm in diameter.

The IMS-Grab™ Bead kits are designed for use in the IMS protocol contained in US EPA Methods 1622, 1623, and 1623.1. However, at this time, our IMS-Grab™ Bead kits have not yet been EPA-validated. The dissociation step called for in the EPA methods may be omitted if separation of the IMS particles from the parasites is unnecessary.

Each kit yields 20 tests, 100 µL per assay.

Kit Includes:

- Grab™ Beads, 2.0 mL (= 20 tests)
- 2X Grab™ Buffer-A, 2X concentrated
- 1X Grab™ Buffer-B, 1X

Items Required for IMS Procedure:

- Prepared Sample in 5.0 mL volume: Environmental Sample (not exceeding 0.5 mL packed pellet volume) or QC Standard
- Grab™ Beads, 0.1 mL to be used per sample
- Grab™ Buffer-A at 2X conc., 5.0 mL per sample
- Grab™ Buffer-B at 1X conc., 1.5 mL per sample
- Flat-sided (Leighton) tube: 125 x 16 mm with 11 x 50 window (flat-side)
- Large magnetic particle concentrator, e.g. Dynal/Invitrogen MPC®-1 magnet or Dynal/Invitrogen MPC®-6 magnet
- Small magnetic particle concentrator, e.g. Dynal/Invitrogen MPC®-S magnet or Dynal/Invitrogen DynaMag-Spin magnet
- 1.5 mL microtubes
- Timer
- Vortex Mixer
- Rotating tube mixer (e.g. Dynal/Invitrogen 'Rotamix')

To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

1. Giardia cyst Isolation

IMS300. Giardia-Grab™

Giardia-Grab™ beads are coated with a monoclonal IgG antibody for the isolation of cysts of *Giardia*.

<u>Product Number</u>	<u>Product Description</u>	<u>Nr Tests</u>	<u>Volume</u>
IMS300-20	Giardia-Grab™	20 tests	2.0 mL

2. Cryptosporidium oocyst Isolation

IMS400. Crypto-Grab™

Crypto-Grab™ beads are coated with a monoclonal IgM antibody for the isolation of oocysts of *Cryptosporidium*.

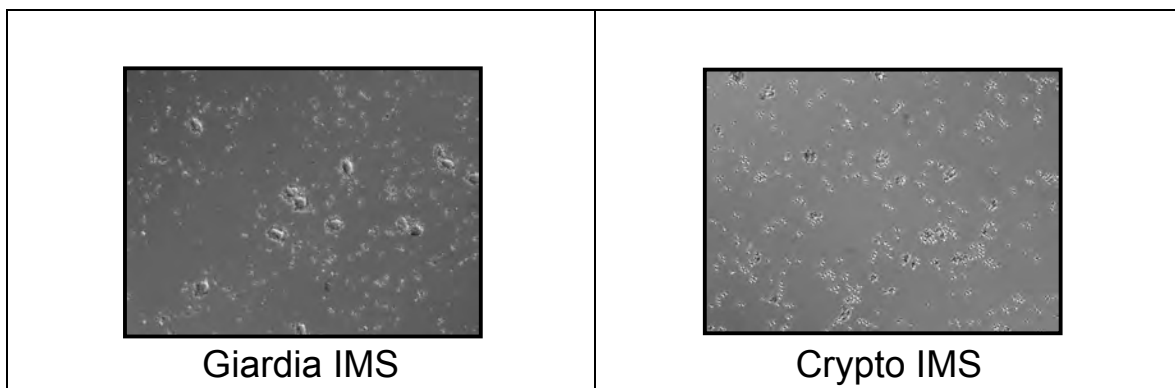
<u>Product Number</u>	<u>Product Description</u>	<u>Nr Tests</u>	<u>Volume</u>
IMS400-20	Crypto-Grab™	20 tests	2.0 mL

3. Giardia cyst and Cryptosporidium oocyst Isolation

IMS100. G/C-Combo-Grab™

Combo-Grab™ beads are a combination of the above two bead types, each provided in a separate vial.

<u>Product Number</u>	<u>Product Description</u>	<u>Nr Tests</u>	<u>Volume</u>
IMS100-20	Combo-Grab™	20 tests	2.0 mL (2)



To place an order or obtain technical support, please call or fax toll-free 866-895-3338.

