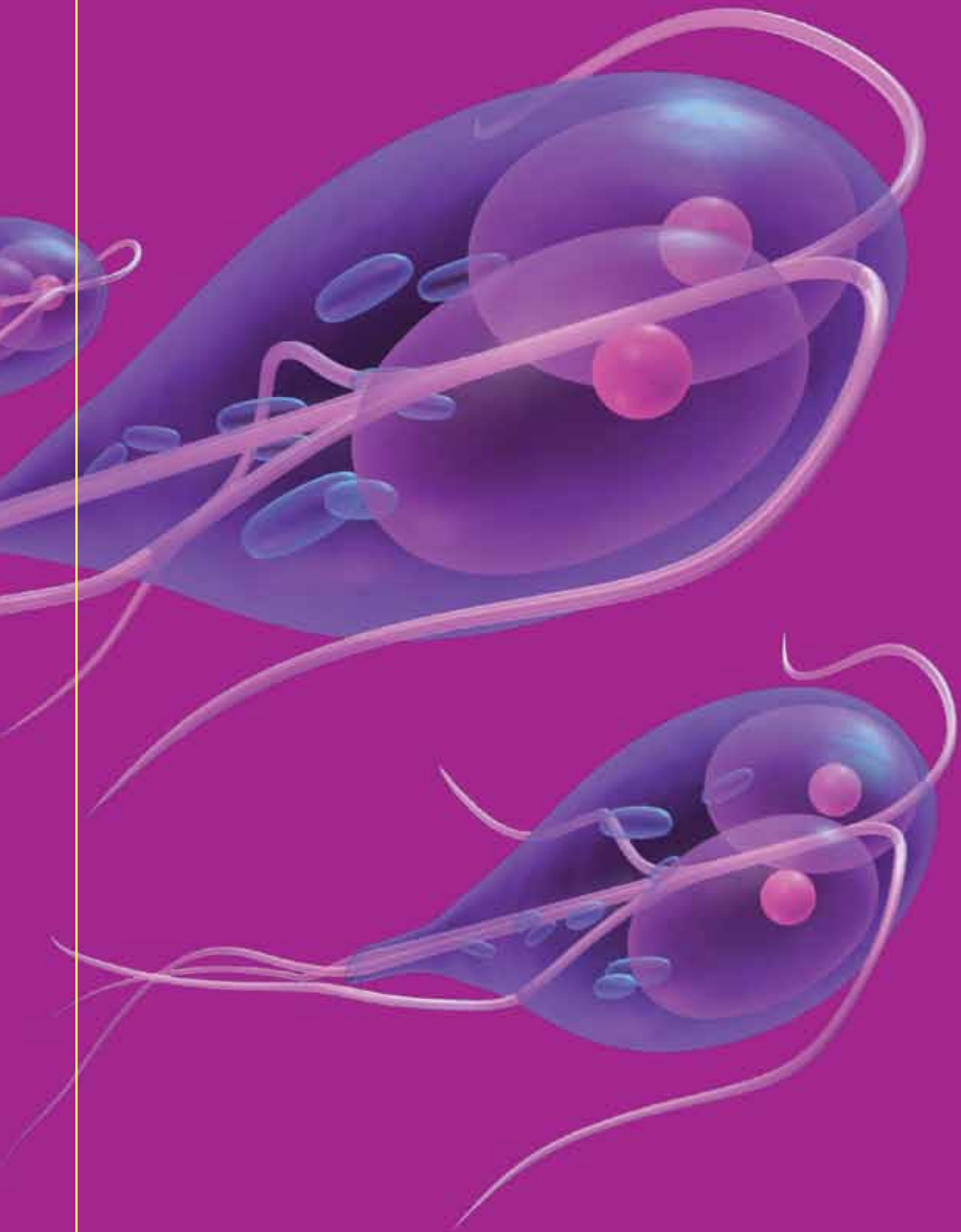


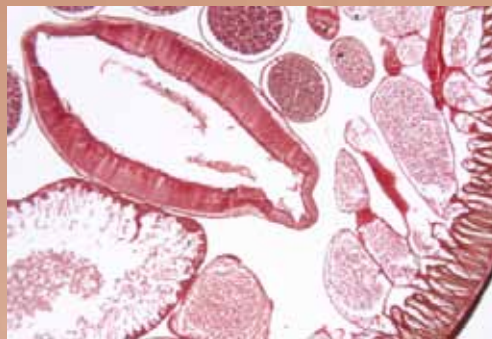
# *P*ARASITOLOGY



# PARASITOLOGY

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 Lake City, Florida  
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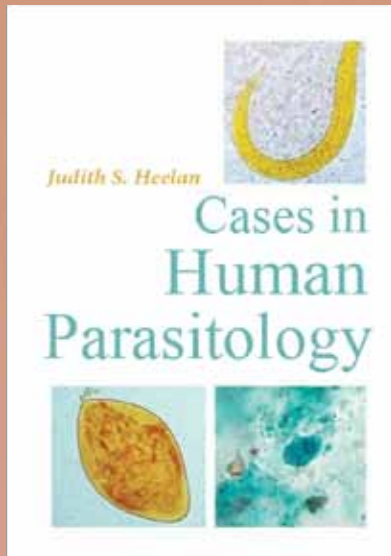


ISO 13485  
 FM 572526

The Quality Management System at the Hardy Diagnostics manufacturing facility is certified to ISO 13485.

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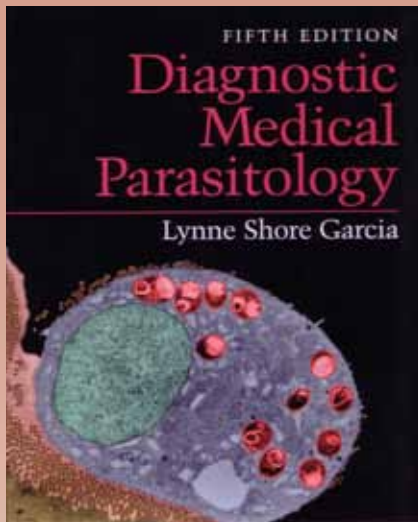
# Books



## Cases in Human Parasitology

This book contains 62 case studies that focus solely on parasites which adversely affect humans. Includes challenging cases with details regarding non-parasitic infections whose symptoms closely resemble those of parasitic infections.

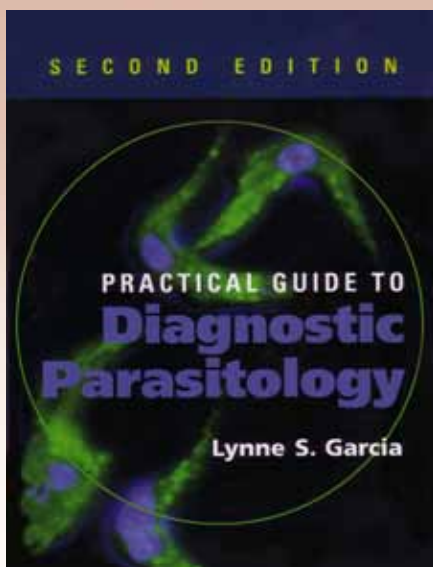
By Heelan, 256 pages, softcover, ASM Press, 2004,  
Each.....5812961



## Diagnostic Medical Parasitology

Updates and advances the field of diagnostic medical parasitology and reports on the dramatic changes that have occurred in this field. Newly recognized parasites, alternative diagnostic techniques defined by new regulatory requirements, implementation of testing based on molecular techniques, expanded tables and photographs, and new information on parasitic infections are included.

By Garcia, 1,202 pages, color photos, hardcover, American Public Health Association Publishing, 2007,  
Each.....5813802



## Practical Guide to Diagnostic Parasitology, 2nd Edition

Designed as a training aid and reference for laboratorians, this guide supplements standard clinical parasitology textbooks by focusing on practical information that has direct application to benchwork. It's loaded with "how-to" tips, based on the author's 30 years of hands-on experience working in clinical laboratories, to help readers perform accurate diagnostic tests and avoid common pitfalls.

By Garcia, 367 pages, softcover, ASM Press, 2009,  
Each.....5814540

# Parasitology Transports

	Packaging	Cat. no.	
Single Vials	Cu-PVA	100 vials/case	280105
	LV-PVA	100 vials/case	280205
	Z-PVA™ (zinc sulfate modified)	100 vials/case	280305
	UNIFIX	100 vials/case	280405
	C&S Medium	100 vials/case	280505
	Clean Vial	100 vials/case	31005
	SAF	100 vials/case	57405
	Formalin 10%	100 vials/case	57505
Two Vial Sets	TOTAL-FIX™	100 vials/case	280705
	TOTAL-FIX™/Clean	50 kits/case	89025
	TOTAL-FIX™/C & S	50 kits/case	89024
	LV-PVA / Clean	50 kits/case	89001
	LV-PVA / Formalin	50 kits/case	89002
	LV-PVA / SAF	50 kits/case	89003
	LV-PVA / C & S	50 kits/case	89004
	Z-PVA™ / Clean	50 kits/case	89005
	Z-PVA™ / Formalin	50 kits/case	89006
	Z-PVA™ / C&S	50 kits/case	89007
	SAF / Clean	50 kits/case	89008
	SAF / C&S	50 kits/case	89009
	Cu-PVA / Formalin	50 kits/case	89010
	Z-PVA™ / SAF	50 kits/case	89011
	Three Vial Sets	TOTAL-FIX™/C & S/Clean	36 kits/case
LV-PVA / Formalin / C & S		36 kits/case	89101
LV-PVA / Formalin / Clean		36 kits/case	89102
Z-PVA™ / Formalin / C & S		36 kits/case	89103
Z-PVA™ / Formalin / Clean		36 kits/case	89104
SAF / Clean / C&S	36 kits/case	89105	



### C&S Medium

Culture & Sensitivity medium is recommended for the recovery of *Shigella*, *Salmonella*, *Campylobacter* and *Vibrio* species. A pH indicator is included to detect acidic conditions which are harmful for the recovery of enteric pathogens. An aqueous solution of sodium thioglycollate, agar, and inorganic salts, (Cary-Blair formula). Fecal immunoassays for *Entamoeba histolytica* or *Entamoeba histolytica* or *E. dispar* group can be performed from this vial. Always check the package insert for any limitations regarding fecal immunoassays and medium/fixative compatibilities.

### Z-PVA™

Zinc Sulfate PVA Mercury-free fixative is an excellent alternative to mercuric chloride PVA for permanent staining. An aqueous solution of low viscosity polyvinyl alcohol, acetic acid, reagent alcohol and a zinc salt. Helps to adhere the specimen to the slide but has no fixative properties.

### Modified (Cu) PVA Fixative

Copper sulfate PVA is used for permanent staining. The copper sulfate replaces mercuric chloride. An aqueous solution of low viscosity polyvinyl alcohol, acetic acid, reagent alcohol, and cupric sulfate.

### LV-PVA

LV-PVA (low viscosity polyvinyl alcohol) "Gold Standard" fixative recommended for permanent staining. An aqueous solution of low viscosity polyvinyl alcohol, glycerin, reagent alcohol, and mercuric chloride.

### Formalin 10%

Fixative recommended for preservation of fecal material used in concentration, EIA, IFA, DFA, and concentration wet mount procedures.

### SAF

Sodium Acetate, Acetic Acid, and Formalin, mercury-free fixative recommended for permanent staining, concentration, membrane flow cartridges, EIA, and ELISA procedures. Albumin adhesive is included. A buffered solution of formaldehyde in water.

### Clean Vial

30ml vial with spork in cap used when preservatives are not required.

Note: For best results all fecal fixatives should be used in the following ratio: 1 part stool to 3 parts fixative.

### TOTAL-FIX™

The "universal fixative" that contains no formalin, PVA, or mercury can be used for concentration (either flotation or sedimentation), permanent staining (Trichrome, Iron-Hematoxylin, Modified Acid-fast, Modified Trichrome), and fecal immunoassays (EIA, DFA, IFA, Membrane Flow Cartridges) other than those testing for *Entamoeba histolytica*/*E. dispar* group. PVA is not needed with TOTAL-FIX™ if the slides are thoroughly dry before staining. TOTAL-FIX™ is the best choice for a universal and reliable fixative! See following page for procedure.

### UNIFIX

Mercury and formaldehyde-free fixative for direct examination, permanent staining, concentration and DFA procedures. Can be used with trichrome and iron hematoxylin stains. Compatible with all Medical Chemical Corporation's fecal concentration systems.

### Pinworm Paddle

Ideal for the collection of *Enterobius* ova (pinworm eggs) from the perianal region. Features a clear polystyrene paddle, light adhesive on one side allowing easy collection of ova for microscopic examination. Container is leak proof and travels well during harsh transport, by StarPlex Scientific. With transport vial, sterile, polypropylene, 30ml, 150/case.....V302PIN



# Procedure for the Use of TOTAL-FIX™ (Universal Fixative)

## 1. Specimen vial containing TOTAL-FIX™ and fecal specimen

Ratio of 1/3 stool, 2/3 fixative – MIX WELL

Allow to fix 30 min before processing

## 2. Tube or concentration device

Add approximately 1-2ml fixative/specimen mix to the tube or device

Mix well prior to pouring into the tube or device

DO NOT ADD ANY RINSE FLUIDS: Saline, water, formalin

Rinse fluids will prevent routine permanent staining

## 3. Centrifuge

10 min at 500 x g

## 4. Pour off most of excess fixative

## 5. Mix sediment with remaining fixative

## 6. Prepare slides for permanent stains; stain slides

Allow slides to dry for ~30-45 min at 37 °C

Slides can be placed on trays and put in the incubator

Room temperature drying requires ~60 min

## 7. Add rinse fluid to remaining stool sediment from step 5

Mix sediment and rinse fluid well before centrifugation

Proceed with routine concentration procedure

Single rinse including ethyl acetate step is recommended

DO NOT ADD ethyl acetate if the specimen contains a lot of mucus

## 8. Ring debris layer, pour off excess fluid

Mix and examine sediment as concentration sediment slide

Entire 22 x 22mm coverslip: low power (10X objective)

1/3 – 1/2 coverslip: high dry power (40X objective)



# Fecal Concentrating Systems



## ParaCon™ Kit, Open System

ParaCon™, fecal concentration kit, includes filter/funnels, 15ml centrifuge tubes, caps, and surfactant (Triton® X). This system is designed for concentrating protozoan cysts, oocysts, and spores, as well as helminth eggs, and larvae. This methodology is similar to the Ritchie formalin-ether sedimentation concentration procedure. The ParaCon™ filter-funnel device provides a standard and consistent mesh size and allows filtration of fecal material without clogging, by Hardy Diagnostics.

48 tests/kit.....PK48



## ParaCon™ Filter Funnels Only

The ParaCon™ filter-funnel device provides a standard and consistent mesh size and allows filtration of fecal material without clogging, by Hardy Diagnostics.

96 funnels/box.....PK96

1,000 funnels/box.....PK1000



## ParaCon™ II Kit, Closed System

A complete closed system for concentrating protozoan cysts, oocysts, and spores, as well as helminth eggs and larvae. The system is designed to be used in direct connection with 30ml stool transport specimen vials (not included). Supplied with 120 filter cap/centrifuge tube assembly, 50ml, 120 centrifuge tube caps, and 2x15 Triton® X-100 reagent, by Hardy Diagnostics.

120 tests/kit.....PC120



15ml Centrifuge Tube



50ml Centrifuge Tube

### Centrifuge Tube

Blue screw cap, black printed graduations, white printed writing space, non-skirted, bulk packed, non-sterile.

Material:  
 Tube: Polypropylene (PP)  
 Cap: High Density Polyethylene (HDPE)  
 Spin rate: 8,500 RPM  
 Temperature Range: -40 °C to +80 °C

15ml, 500/case.....6284  
 50ml, 500/case.....6287



15ml Centrifuge Tube, Sterile, Racked



50ml Centrifuge Tube, Sterile, Racked



50ml skirted, Centrifuge Tube, Self-Standing

### Centrifuge Tube

Blue screw cap, black printed graduations, white printed writing space, non-skirted, racked, sterile.

Material:  
 Tube: Polypropylene (PP)  
 Cap: High Density Polyethylene (HDPE)  
 Spin rate: 8,500 RPM  
 Temperature Range: -40 °C to +80 °C

Centrifuge Tube, Sterile Racked,  
 15ml, 50 tubes/rack, 500/case.....6286  
 50ml, 25 tubes/rack, 500/case .....6289

### Centrifuge Tube, Self-Standing

Tubes are RNase/DNase free, non-pyrogenic and non-cytotoxic. White graduation marks and writing area. 50ml centrifuge tube, polypropylene (PP) with separate red screw cap (HDPE), skirted for self-standing, printed graduations, non-sterile, bulk-packed.

Material:  
 Tube: Polypropylene (PP)  
 Cap: High Density Polyethylene (HDPE)  
 Temperature Range: -196 °C to +121 °C  
 Cap: -50 °C to +100 °C  
 50ml, 500/case.....6255

# Stains & Reagents

## Acid Alcohol 0.5%

Acid alcohol decolorizer  
32 oz, Each .....AAD32

## Acid Alcohol 90%

Acid Alcohol (Ethanol, HCl),  
a component of the trichrome  
procedure for parasitology.  
32 oz, Each ..... 3720A32

## Carbol Xylene

16 oz, Each..... VXZ016  
32 oz, Each .....VXZ032

## Cryptosporidium Stain, Modified (Partial)

Acid Fast, also for *Isospora* cold  
method. Kinyoun Carbol Fuchsin  
with Methylene Blue counterstain.  
4 x 8 oz bottles ..... 482K

Kinyoun Carbol Fuchsin with  
Malachite Green counterstain.  
4 x 8 oz bottles .....482KMG

## Ethanol 70%

For trichrome and other uses,  
reagent grade.  
32 oz, Each ..... VXB032  
One gallon, Each.....3716A128

## Envirene, Xylene Substitute

An odorless non-toxic substitute  
for xylene, can be used for any  
procedure that calls for xylene. For  
histology, parasitology, or for slide  
cleaning. Has no citrus smell.  
16 oz, Each.....CE016

## Ethyl Acetate

For preparing parasite  
concentrations.  
16 oz, Each.....ET105

## Ethanol 95%

Ethanol 95%, Water 5%,  
32 oz, Each ..... VXC032  
One gallon, Each.....3719A128



## Iodine Alcohol

Used to remove the mercury  
deposits in Schaudinn or PVA  
fixed fecal smears. It prevents  
mercury-caused artifacts on slides  
in the Wheatley trichrome staining  
procedure.

16 oz, Each..... VXI016  
One gallon, Each..... VXI128

## Iodine, Dobell and O'Connor

A weak iodine solution (diluted  
Lugol's) is recommended for use  
in staining protozoan cysts. This  
preparation is a 1:5 dilution of  
Lugol's Iodine.  
Amber glass bottle, 15ml ..... Z66

## Mayer's Albumin

Used to adhere fecal specimens  
to glass slides in the modified iron  
hematoxylin/Kinyoun or trichrome  
staining process.  
15ml, Each ..... Z69

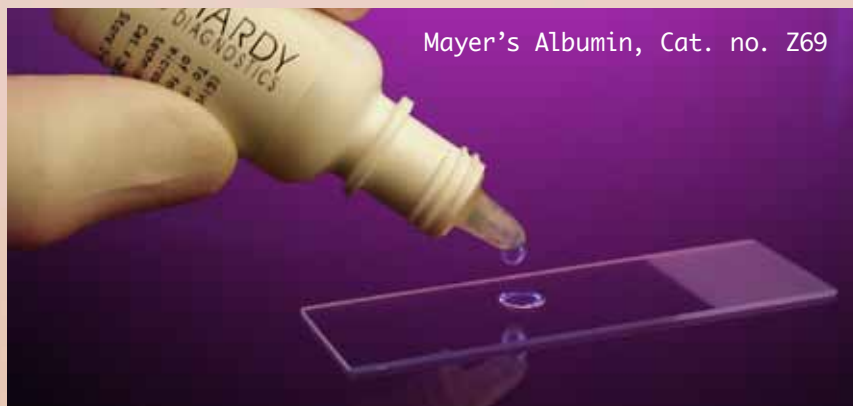
## Schaudinn's Fixative, Modified

Mercury-free, used as an on-slide  
parasite fixative for fresh fecal  
smears. It is used in the Wheatley  
trichrome stain procedure. It  
prevents distortion of parasitic  
elements (copper sulfate formula).

16 oz, Each..... VXM016  
32 oz, Each .....VXM032

## TOTAL-FIX™ Fixative, (Schaudinn's Zinc Fixative)

A Schaudinn's fixative that contains  
zinc rather than mercury, this  
product allows you to bypass the  
iodine step (to remove mercury salts  
from the fixed specimen and allow  
penetration of the stain).  
Contains zinc, but no PVA.  
16 oz, Each..... 2807A160Z



Mayer's Albumin, Cat. no. Z69



### Trichrome Starter Kit

Trichrome parasitology starter kit (Wheatley's procedure) has everything you need. This single, convenient package contains all the materials to prepare stained fecal smears. It contains 8 oz each of Schaudinn's Fixative, Trichrome Stain; 16 oz each of: Carbol Xylene, Xylene, Iodine Alcohol, 70% Ethanol, 95% Ethanol, 90% Acid Ethanol and 10 reusable Coplin Jars.

Additionally, Hardy sells a refill kit (#VXR010) with all of the above listed items, except the Coplin Jars.

Contains Schaudinn's Fixative, Ethanol 70%, Gomori Trichrome Stain, Acid Ethanol 90%, Ethanol 95%, Carbol Xylene, Xylene, 8 reagents and 10 Coplin jars.  
Kit..... VXF019

### Trichrome Stain, Modified

For staining microsporidia, formulated according to Weber, with aniline blue.

16 oz, Each.....MT016

### Trichrome Starter Kit-Refill

8 reagents/kit, without jars ..... VXR010

### Xylene

Xylene, a component of the trichrome procedure for parasitology. A mixture of ortho, para, and meta dimethylbenzene. (For a non-toxic alternative, see "Envirene.")

16 oz, Each..... 134B16

One gallon, Each .....134B128

### Wheatley's Trichrome Stain

The Wheatley's trichrome stain is used in the differentiation and rapid staining of intestinal parasites. This kit may also be used as a counter-stain in histological sections when performing the Gomori procedure.

16 oz, Each.....T016

32 oz, Each .....T032

# Staining Accessories



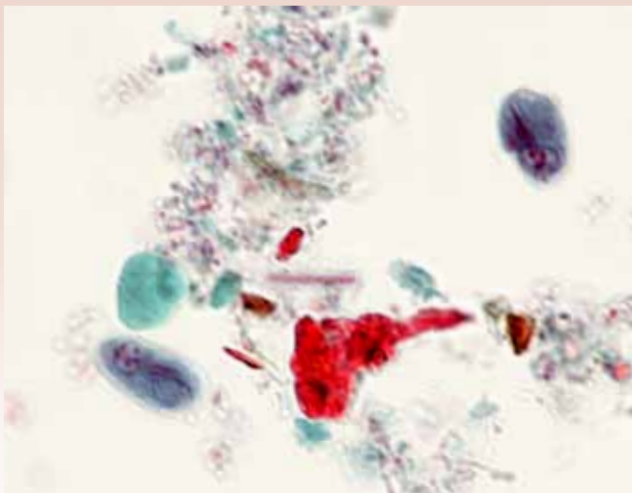
## Coplin Jar, Glass

For staining slides, the jar holds five single 3" x 1" slides vertically or 10 slides back-to-back. Screw cap is white linerless polypropylene, which reduces solvent evaporation. Rectangular base. Holds approximately 60ml. Approximate inside dimensions: 26mm L x 26mm W x 90mm D.  
Each.....900570



## Coplin Jar, Plastic

For manual staining procedures. Jars are white plastic with a screw-on top to minimize evaporation. These jars are for use in all staining procedures, with slots on top to eliminate slide contact. Holds 5 slides in upright position or 10 slides back-to-back.  
Each.....VCJ001



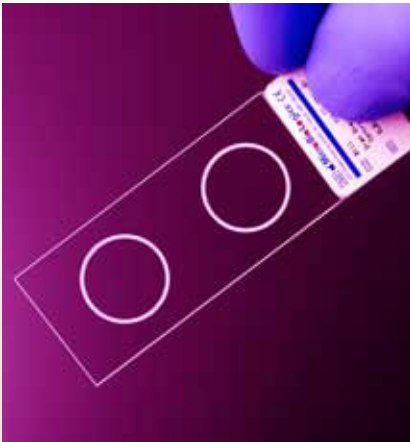
*Giardia lamblia*

## Slide Staining Rack

This stainless steel staining rack is designed for use with laboratory sinks of various sizes. Triangular slide supporting rods have a tapered top, and contact the slides only in a narrow zone. Rack can be easily and quickly adjusted to fit sinks up to 53.4cm (21") inside dimensions.  
24" wide, Each.....15153821



# Control Slides for Stains



## Control Slide, Blood Parasite

This quality control slide provides an air-dried, methanol-fixed, blood parasite smear containing *Plasmodium*, *Babesia*, or *Trypanosoma*.  
10 slides/box.....SL9010

## Control Slide, Intestinal Protozoa, Zinc PVA

Each slide has a single air-dried, Zinc PVA preserved, fecal smear with a representative intestinal protozoa. PVA preserved fecal smear,  
10 per box.....SL1010

## Control Slide, Intestinal Protozoa, SAF

Each slide has a single air-dried, SAF preserved, fecal smear with a representative intestinal protozoa.  
10 slides/box.....SL1510

## Control Slide, Cryptosporidium

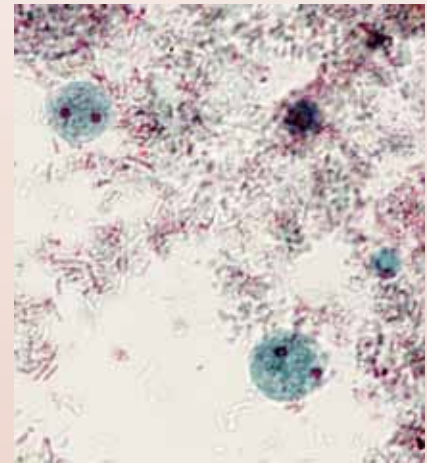
This quality control slide provides a single air-dried and methanol-fixed fecal smear containing acid-fast-positive *Cryptosporidium* and acid-fast-negative intestinal bacteria.  
10 slides/box.....SL4510

## Control Slide, Pneumocystis

This quality control slide provides a single air-dried and methanol-fixed smear tissue preparation containing *Pneumocystis*, for the QC of staining procedures, such as the giemsa or silver nitrate stains.  
10 slides/box.....SL7010

## Control Slide, Acid-Fast Control Slide

This quality control slide provides two air-dried and methanol-fixed droplets within two etched circles. The circle nearest the label contains a droplet of an acid-fast-positive *Mycobacterium*. The circle furthest from the label contains a droplet of an acid-fast-positive *Cryptosporidium* in a fecal smear sample and also contains acid-fast-negative intestinal bacteria.  
10 slides/box.....SL4010



*Dientamoeba fragilis*

# Free-Living Amoebae Media



*Acanthamoeba castellanii* showing "feeding tracks" on Non-Nutrient Agar with *E. coli*.

## Free-Living Amoeba Media

For the detection of *Acanthamoeba* and *Naegleria* species from clinical and environmental samples. Microscopic examination after two to three days reveals the presence of typical "feeding tracks" which are characteristic of *Acanthamoeba* sp. Requires *E. coli* stock culture (not provided) for use in preparing the bacterial lawn on the Non-Nutrient Agar plates.

## Acanthamoeba Broth

For maintenance of stock cultures.  
16x100mm tube, 5ml fill,  
20/pk.....K225

## Page's Saline

Preparation of suspension used to inoculate Non-Nutrient Agar plates.  
13x100mm polycarbonate tube,  
2ml fill, 20/pk.....R225

## Non-Nutrient Agar

Non-Nutrient Agar plate, for the detection of free-living amoebae, including *Acanthamoeba* and *Naegleria* spp., by Hardy Diagnostics.  
15x100mm plate,  
10/pk.....G225

# 11 Ways to Make a Better Slide

by Lynne S. Garcia, MS, MT, CLS, BLM, FAAM



**1** The single most important step in the preparation of a well stained fecal smear is good fixation.

**2** Slides should always be drained between solutions. Touch the end of the slide to a paper towel for two seconds to remove excess fluid before proceeding to the next step.

**3** Incomplete removal of mercuric chloride (liquid Schaudinn's fixative with PVA) may cause smear to contain highly refractive crystals or granules, which may prevent detection or identification of any organisms present. The 70% ethanol-iodine solution removes the mercury from the slide; the subsequent alcohol rinses then remove the iodine (should be a strong tea color). Thus, when the slide is ready for trichrome staining, both the mercury and iodine have been removed.

**4** When using non-mercury based fixatives, the iodine-alcohol step (used for the removal of mercury) and the subsequent alcohol rinses can be eliminated from the procedure. The smears for staining can be pre-rinsed with 70% alcohol and then placed in the trichrome stain, or they can be placed directly into the trichrome stain as the first step in the staining protocol.

**5** Smears that are predominantly green may be due to the inadequate removal of iodine by the 70% ethanol (steps 3 and 4). Lengthening the time of these steps or more frequent changing of the 70% ethanol will help.

**6** To restore weakened trichrome stain, remove the cap and allow the ethanol (carried over on the staining rack from a previous dish) to evaporate. After a few hours, fresh stock stain may be added to restore lost volume. Older, more concentrated stain produces more intense colors and may require slightly longer destaining times (an extra dip). Remember that PVA smears usually require a slightly longer staining time.

**7** Although the trichrome stain is used essentially as a "progressive" stain (no destaining is necessary), the best results are obtained by using the stain "regressively" (destaining the smears briefly in acidified alcohol). Good differentiation is obtained by destaining for a very short time (two dips only, approximately 2 to 3 seconds); prolonged destaining results in poor differentiation.

**8** It is essential to rinse the smears free of acid to prevent continued destaining. Since 90% alcohol will continue to leach trichrome stain from the smears, it is recommended that after the acid-alcohol is used, the slides be quickly rinsed in 100% alcohol and then dehydrated through two additional changes of 100% alcohol.

**9** In the final stages of dehydration (steps 9 to 11), the 100% ethanol and the xylene (or xylene substitute) should be kept as free from water as possible. Coplin jars must have tight-fitting caps to prevent both evaporation of reagents and absorption of moisture. If the xylene becomes cloudy after addition of slides from the 100% ethanol, return the slides to fresh 100% ethanol and replace the xylene with fresh stock.

**10** If the smears peel or flake off, the specimen might have been inadequately dried on the slide (for PVA-fixed specimens), the smear may have been too thick, or the slide may have been greasy (fingerprints). However, slides generally do not have to be cleaned with alcohol prior to use.

**11** If the stain appears unsatisfactory upon examination and it is not possible to obtain another slide to stain, the slide may be restained. Place the slide in xylene to remove the coverslip, and reverse the dehydration steps, adding 50% ethanol as the last step. Destain the slide in 10% acetic acid for several hours, and wash it thoroughly first in water and then in 50 and 70% ethanol. Place the slide in the trichrome stain for 8 minutes, and complete the staining procedure.

## References:

1. Clinical Laboratory Standards Institute. 2005. *Procedures For the Recovery and Identification of Parasites From the Intestinal Tract*, Approved Guideline, M28-2A. Clinical Laboratory Standards Institute. Villanova, PA.
2. Garcia, L.S. (Coordinating Editor). 2003. *Selection and Use of Laboratory Procedures for Diagnosis of Parasitic Infections of the Gastrointestinal Tract*, Cumitech 30A. ASM Press. Washington, D.C.
3. Garcia, L.S. 2007. *Diagnostic Medical Parasitology*, 5th Edition. ASM Press. Washington, D.C.
4. Garcia, L.S. 2009. *Practical Guide to Diagnostic Parasitology*, 2nd Edition. ASM Press. Washington, D.C.



# Microscope Supplies

## Bibulous Blotting Paper

High quality, highly absorbent papers manufactured for minimum linting and shedding. Recommended for drying slides, and small parts or components. Bibulous paper, slide blotting paper, non-linting, super-absorbent.



12 books, 50 sheets per book.....28511007

## Cover Glass

High quality, borosilicate cover glass is non-corrosive and non-fogging. Devoid of scratches, bubbles, and striations. The flatness provides a uniform distortion-free surface. A desiccant is added to each box to ensure that moisture doesn't degrade the cover glass. Convenient plastic storage container allows for easy stacking on the shelf, by Hardy Diagnostics.

18x18mm, 1 oz box.....1818HD  
22x22mm, 1 oz box.....2222HD  
22x40mm, 1 oz box.....2240HD  
24x40mm, 1 oz box.....2440HD  
24x50mm, 1 oz box.....2450HD

## ProSlide™ Microscope Slides

Single frosted one end, one side. White glass, beveled edges. Available in the super clean and polished premium grade or economy grade. The economy slide is not recommended for hematology use, by Hardy Diagnostics.

3x1 inches x 1mm, 72/box:  
frosted, economy.....PF72E  
frosted, premium.....PF72P  
plain, economy.....PP72E  
plain, premium.....PP72P

## Lens Cleaner

An effective microscope lens cleaning solution in a dropper bottle. Safe to use on the most delicate optics. Use with lens tissue, Cat. no. 52846001, by Hardy Diagnostics.

30ml, Each.....Z97

## Lens Paper, Non-linting

For cleaning microscope lenses, safety glasses, goggles, and more with no scratching. Dust-free lens paper tissues are ideal for use with liquid cleaners.

4x6 inches, 50 sheets/pk,  
12 packs.....52846001

## Immersion Oil

Used to assist in microscopic examination at high power by increasing the resolving power, by Hardy Diagnostics.

Low Viscosity

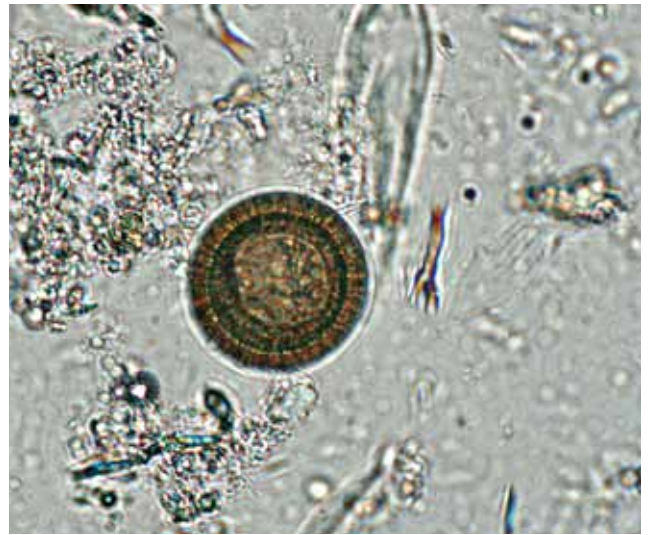
Type A, 20ml, Each ..... Z95

Type A, 4 oz, Each ..... Z85

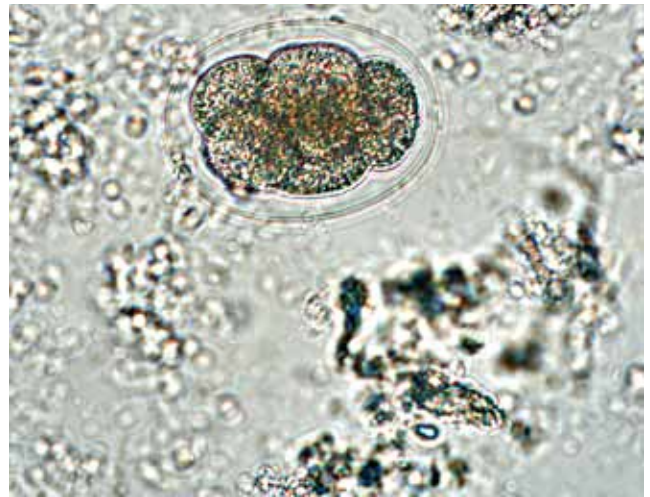
High Viscosity

Type B, 20ml, Each ..... Z96

Type B, 4 oz, Each ..... Z86



*Taenia* spp.



Hookworm egg



For a complete listing of Microscope Supplies, please refer to our General Lab Supplies section.



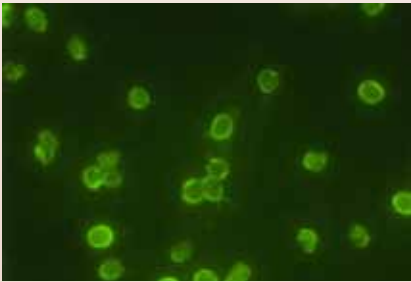
*Trichuris trichiura* egg

# Rapid Tests

## PARA-TECT™ Cryptosporidium/ Giardia Direct Fluorescent Assay

This direct fluorescent assay (DFA) is an *in vitro* immunoassay for the qualitative determination of *Cryptosporidium* and *Giardia* oocysts and cysts in feces. Can be used with stools preserved in 10% formalin, SAF, or TOTAL-FIX™ Universal Fixative. Results in 60 minutes, by Medical Chemical Corporation.

75 tests.....MCCCG75



*Cryptosporidium parvum*. Obtained from the EPA Microbiology site. Image credit: EPA/H.D.A. Lindquist

## ImmunoCard STAT!®, Cryptosporidium/Giardia

A rapid immunoassay for the qualitative detection of *Cryptosporidium parvum* and *Giardia lamblia* specific antigens in aqueous extracts of fecal specimens. It is intended for *in vitro* diagnostic use as an aid in the detection of suspected *Cryptosporidium* or *Giardia* infections, by Meridian Diagnostics.

30 tests.....750830



## PARA-TECT™ Giardia lamblia Antigen Detection

This microwell ELISA test is an *in vitro* immunoassay for the qualitative determination of *Giardia* antigen in feces. It is a double antibody (sandwich) ELISA using an anti-giardia antibody to capture the antigen from the stool supernatant. A second anti-giardia antibody is then added which sandwiches the captured antigen. This reaction is visualized by the addition of an anti-second antibody conjugated to peroxidase and the chromogen tetramethylbenzidine (TMB). The resulting blue color development indicates the presence of *Giardia* antigens being bound by the anti-giardia antibodies. Results in 45 minutes with a sensitivity of 5-10 ng/ml *Giardia*, by Medical Chemical Corporation.

96 tests.....MCCGA96

## InPouch™ TV (*Trichomonas vaginalis* Test)

A unique transport and test system; suitable for hospital and outpatient clinics. Decreased labor time because two procedures are combined into one test. An accurate system for the detection of *Trichomonas vaginalis* in both males and females. Pouch fits into a plastic frame that is laid on the microscope stage. Organisms can be viewed directly in the pouch under the microscope, without the need to prepare a slide. It contains a highly selective medium for *T. vaginalis*, which facilitates early detection of infection and detects fewer numbers of organisms than other competitive methods. This means the patient receives treatment more quickly and less severe infections can be more readily detected. One year shelf life from date of manufacture, by BioMed Diagnostics.

Pouch for *Trichomonas vaginalis*,  
10 tests.....102001  
100 tests.....102003

Plastic clips for microscope stage,  
12/box.....142205  
Live culture (positive control),  
Each.....102015



**InPouch™ TF-Bovine, for *Tritrichomonas foetus***

*Tritrichomonas foetus* in cattle is a sexually transmitted infection associated with aborted calves, low birth weight, or delayed calving, which can result in decreased herd yields of 8-29%. Infected bulls are asymptomatic long term carriers; their infection rates are 6-8%, but have been found as high as 44% in some rangeland areas of the western US. Bovine trichomoniasis is caused by the flagellate protozoan, *Tritrichomonas foetus*. One year shelf life and high specificity, by BioMed Diagnostics.

- InPouch™ is now used for the detection of non-specific trichomonads in bovines, *Trichomonas gallinae* in avian, and *T. suis* in swine
- Requires less hands-on time than wet mount
- Two procedures are combined into one test (culture and identification)
- No expensive equipment required
- One year, room temperature shelf life reduces storage cost
- Easy to Use
- Suitable for in-the-field testing
- No slide preparation
- Store reagents at room temperature
- Innovative Packaging

100 tests.....111003

**InPouch™ TF-Feline, for *Tritrichomonas foetus***

*Tritrichomonas foetus* in felines is a protozoan infection of the large intestine which can lead to prolonged and intractable diarrhea. Recent studies have shown that *T. foetus* infects approximately 31% of cats.

Frequently, cats are co-infected with *Giardia* or, because *T. foetus* and *Giardia* appear similar, cats are misdiagnosed with *Giardia*. When a cat diagnosed with *Giardia* fails to respond to treatment, it is recommended that the cat be tested for *T. foetus*.

InPouch™ TF-Feline is a culture and identification system that can detect infection by a single trichomonad. The specialized medium allows for maximum growth of trichomonads while inhibiting the growth of yeast, mold, and bacteria. One year shelf life, by BioMed Diagnostics.

- Suitable for in-the-field testing
- No slide preparation
- Store reagents at room temperature
- Innovative Packaging
- Unique transport and test system
- Wet mount and culture in one system

Two procedures are combined into one test (culture and identification).  
5 tests.....111107

**Mast Toxoreagent™, Rapid Latex Agglutination Test Kit**

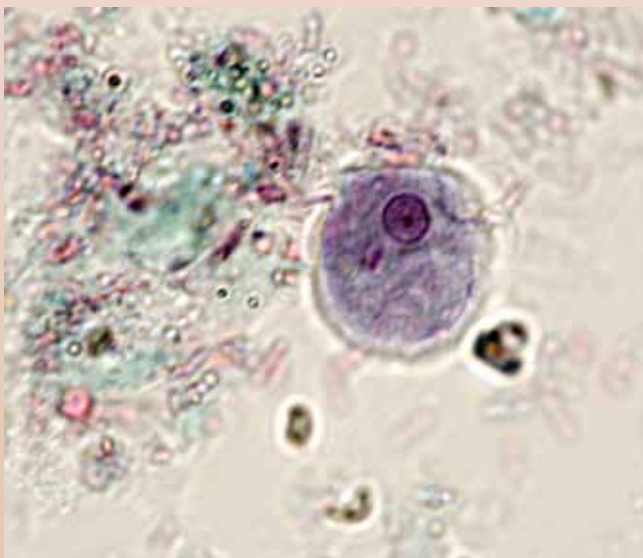
Toxoreagent™ kit is an indirect latex agglutination test for the detection of toxoplasma antibody. This simple, easy to use kit has a positive result indicated by an obvious agglutination pattern after 12 hours. Kit detects both toxoplasma IgM and IgG with all reagents and positive control provided. Reliable results with a high degree of specificity which reduces false negatives. Suitable for all types of users and easily integrated into your existing laboratory routine, by Mast.  
50 tests .....RST701

**Merifluor®, Crypto/Giardia**

An *in vitro* direct immunofluorescent detection procedure for the simultaneous detection of *Cryptosporidium* oocysts and *Giardia* cysts in fecal material. Requires just 30 minutes to complete the test. Bright apple-green fluorescence of the parasite against red-orange background makes even rare organisms easy to see, by Meridian Diagnostics.  
50 tests.....250050

**PARA-TECT™ Cryptosporidium Antigen Detection Kit**

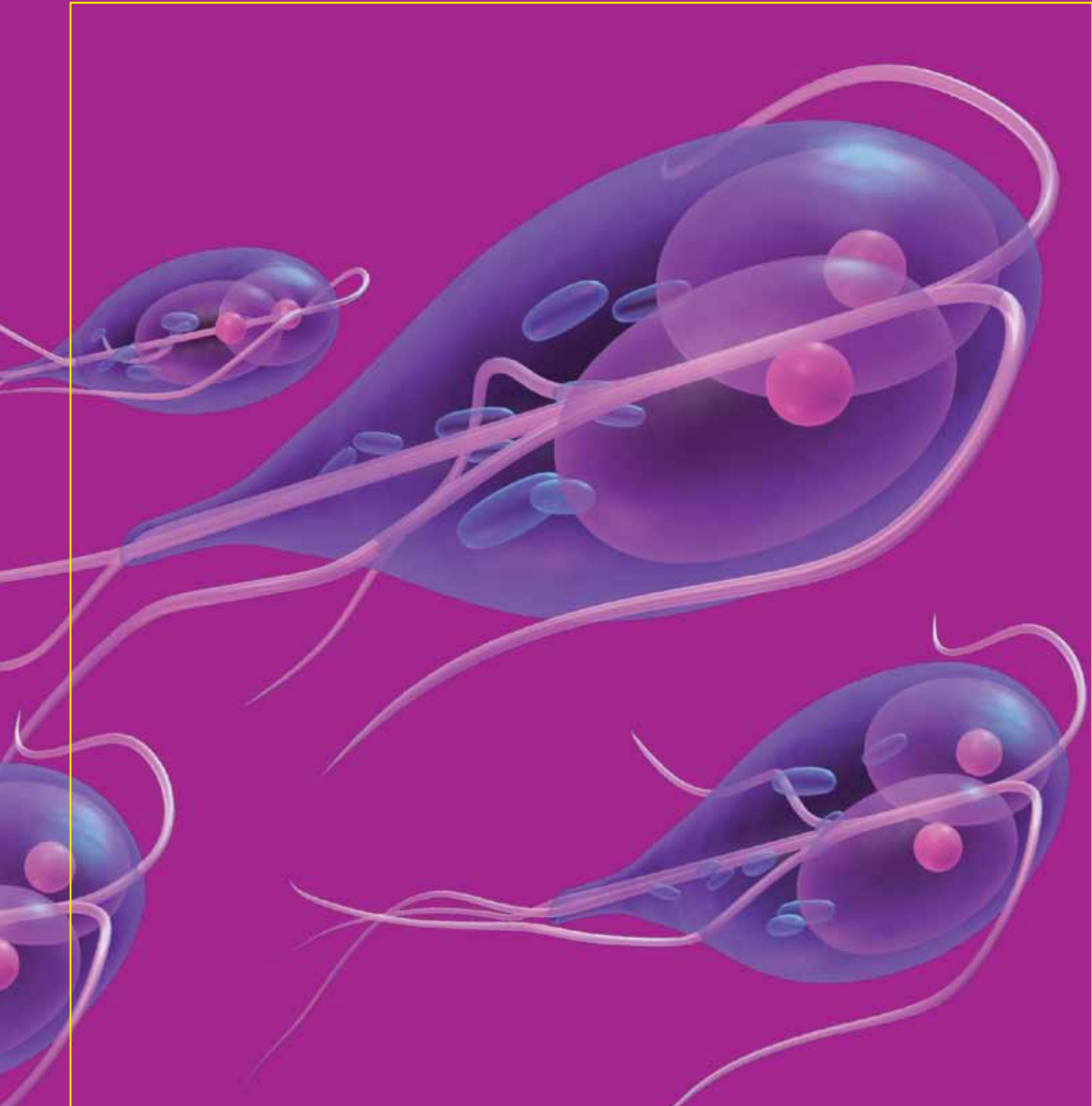
This microwell ELISA test is an *in vitro* immunoassay for the qualitative determination of *Cryptosporidium* antigen in feces. It is a double antibody (sandwich) ELISA using an anti-cryptosporidium antibody to capture the antigen from the stool supernatant. A second anti-cryptosporidium antibody is then added which sandwiches the captured antigen. This reaction is visualized by the addition of an anti-second antibody conjugated to peroxidase and the chromogen tetramethylbenzidine (TMB). The resulting blue color development indicates the presence of *Cryptosporidium* antigens being bound by the anti-cryptosporidium antibodies. Results in 45 minutes, by Medical Chemical Corporation.  
96 tests.....MCCCP96



*Entamoeba histolytica/E. dispar* trophozoite







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The Quality Management System at Hardy Diagnostics manufacturing facility is certified to ISO 13485.

ISO 13485  
FM 572526

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