

# SAMPLE PREPARATION AND SHIPPING INSTRUCTIONS

## SEROLOGY

1. If sending serum samples that are not heat inactivated, ship in an insulated container on a cold pack. If sending serum samples that are heat inactivated, ship at ambient temperature in an insulated container.
2. Vials should be tightly sealed and labeled with ID number using permanent marker. Outside threaded plastic tubes preferred to minimize leakage.
3. Submission form and a purchase order must accompany each shipment.
4. Receiving Department is closed on Sundays and holidays.
5. Advance notification of all shipments allows for the most efficient processing of samples.

### Ship Samples to:

Attn: VRL  
401 Professional Drive  
Suite 210  
Gaithersburg, MD 20879

Questions: Call Client Services at 301-610-2521 or 800-804-3586, fax 240-686-6776 or visit [www.vrl.net](http://www.vrl.net)

### Serology Requirements:

Sample Type	Amount Needed	Sample Requirements
<b>Serum for Mouse Core Serology Panel</b>	*Undiluted: 0.05 ml needed per profile Diluted: 0.25 ml needed per profile	Dilute 1 part serum/plasma in 4 parts sterile Phosphate Buffer Saline (PBS) Heat Inactivate @ 56°C
<b>Rodent Serum</b>	*Undiluted: 0.025 ml needed per assay 0.20 ml needed per profile Diluted: 0.05 ml needed per assay 1.0 ml needed per profile	Dilute 1 part serum/plasma in 4 parts sterile Phosphate Buffer Saline (PBS) Heat Inactivate @ 56°C
<b>Rabbit Serum</b>	*Undiluted: 0.025 ml needed per assay 0.20 ml needed per profile	Do not Heat Inactivate @ 56°C



# SAMPLE PREPARATION AND SHIPPING INSTRUCTIONS

## PCR

1. For PCR samples, fecal/tissue samples should be sent overnight in an insulated container on dry ice.
2. Vials should be tightly sealed and labeled with ID number using permanent marker. Outside threaded plastic tubes preferred to minimize leakage.
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## PCR Requirements:

Sample Type	Amount Needed	Shipping Requirements
Blood	2-3 ml whole blood (EDTA tube) Blood should be tested 24 to 48 hrs of blood collection	Overnight insulated container on cold packs for arrival Tuesday through Thursday
Fecal	2 -3 fecal pellets per sample	Overnight in an insulated container on dry ice
Tissue	10-20 mg of tissue per sample	Overnight in an insulated container on dry ice
Cultured Cells or Cell Pellet	2 vials of 1 ml each of $1 \times 10^7$ cells/ml in culture media or Equivalent amount of cells in pelleted	Overnight in an insulated container on dry ice
Culture Fluid	2 vials of 1ml culture fluid each	Overnight in an insulated container on dry ice

## Cell Line PCR Requirements:

Samples Type	Amount Needed	Shipping Requirements
Cultured Cells or Cell Pellet	2 vials of 1 ml each of $1 \times 10^7$ cells/ml in cell culture media or equivalent amount of cells pelleted	Overnight in an insulated container on dry ice
Culture Fluid	2 vials of 1ml culture fluid each	Overnight in an insulated container on dry ice
Tissue	10-20 mg of each tissue or pooled tissues	Overnight in an insulated container on dry ice



# SAMPLE PREPARATION AND SHIPPING INSTRUCTIONS

## SMALL ANIMAL / MICROBIOLOGY / PARASITOLOGY

1. Submission form and a purchase order must accompany each shipment.
2. Advance 24 to 48 hr. notification of all shipments allows for the most efficient processing of samples.
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## LIVE ANIMAL

Ship animals in filter protected boxes with a source of food and moisture appropriate for the species. Provide adequate identification.

## BACTERIOLOGY

**Transport Swabs** – Swabs in culturette-type transports with semi-solid media must extend into the media. Seal caps with either parafilm or tape to prevent leakage. Activate ampule-type culturettes before shipment (i.e., break the ampule). If samples are to be in transit more than 24 hours, place a cold pack in an insulated shipping container.

**Plates and Broth Media** – Seal plates and tubes with tape or parafilm to prevent leakage and contamination. Invert plates (media on top) for shipping and ship tubes in an upright position. Ship at ambient temperature.

**Aerobic Culture** - If possible, use culturette-type swabs for fecal matter, and follow the instructions above. If culturettes are unavailable, place feces in non-breakable, leak-proof, screw cap vial with sufficient sterile phosphate buffered saline (PBS) added to maintain moisture. Seal vials with parafilm or tape and ship in an upright position. If samples are to be in transit more than 24 hours, place a cold pack in the shipping container.

**Anaerobic Culture** - If possible, use culturette-type swabs containing a Cary-Blair transport medium for fecal matter, and follow the instructions above. If culturettes are unavailable, place feces in non-breakable, leak-proof, screw cap vial with sufficient sterile phosphate buffered saline (PBS) added to maintain moisture. Place the vial into an anaerobic bag or Gas-Pak which removes oxygen gas. Seal vials with parafilm or tape and ship in an upright position. If samples are to be in transit more than 24 hours, place a cold pack in the shipping container.

## PARASITOLOGY

**Sedimentation (for helminth ova, protozoal oocyst, and cysts)** - Place feces in a non-breakable, leak-proof vial with 1 part feces to 3 parts 10% formalin. Seal vials with tape or parafilm and ship in an upright position at ambient temperature.

**Wet mount (Formalin-fixed sample for protozoal cysts)** – Place feces in a non-breakable, leak-proof vial with sufficient sterile saline to liquefy sample. Add 10% formalin (1 part feces to 3 parts 10% formalin). Seal vials with tape or parafilm and ship in an upright position at ambient temperature.

**Wet Mount (Fresh sample for protozoal trophozoites)** - Live rodents and/or rabbits should be sent to VRL for this assay. Please see instructions above for shipping animals.

**Tape Test (for presence of pinworm ova)** – Using a piece of clear cellophane tape, firmly press against the animal's anus. Place the tape onto a glass microscope slide (be sure to label the slide with animal ID). Send slides at ambient temperature in a non-breakable container or slide box.

## ENVIRONMENTAL MONITORING

**RODAC Plates** - Seal plates with tape or parafilm to prevent contamination. Invert plates for shipping. Ship at ambient temperature.

**Water Analysis Collect** - ~40ML water in three (3) sterile 50 ml conical tubes, secure lids with para-film to avoid leakage in transit. Avoid exposure to light. Ship at ambient temperature.

**Environmental Swabs** - Swabs in culturette-type transports with semi-solid media must extend into the media. Seal caps with either parafilm or tape to prevent leakage. Activate ampule-type culturettes before shipment (i.e., break the ampule). If samples are to be in transit more than 24 hours, place a cold pack in an insulated shipping container.



# SAMPLE PREPARATION AND SHIPPING INSTRUCTIONS

## CLINICAL PATHOLOGY

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2. Advance 24 to 48 hr. notification of all shipments allows for the most efficient processing of samples.
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### Serum for Routine Clinical Chemistry

Collect blood in a plain red top tube, or a tube with serum separator gel.  
Allow blood to clot at room temperature for 20-30 minutes (no longer). Tubes containing a serum separator gel can be centrifuged as soon as a clot has formed (usually within 5 minutes).  
Centrifuge 10-20 minutes at 2000-3500 rpm.  
Draw off serum in to a transport tube.  
Ship refrigerated (on chilled "wet ice" packs) if samples will arrive within 48 hours of collection.  
Ship frozen on dry ice if greater than 48 hours after collection.  
ISE Testing (electrolytes) requires a minimum serum volume of 150µl per sample.

### Whole Blood for Hematology Procedures

A minimum volume of 175 microliters of blood is required to do most tests.  
Draw whole blood into a lavender (purple) top EDTA tube (50-80% full).  
Immediately mix thoroughly by inverting several times.  
Blood with clots will not produce accurate results.  
If manual blood counts are to be requested, make two blood smear slides from the tube and allow to dry. Ship in a sealed slide box to keep out moisture.  
Ship blood samples on chilled "wet ice" packs. **(Insulate samples to avoid direct contact with frozen ice packs)**  
Do not freeze whole blood samples.

### Urine for Urinalysis Procedures

Submit fresh samples in sealed Eppendorf tubes.  
Ship within 24 hours of collection at room temperature.  
If submitted greater than 24 hours past collection, ship on chilled "wet ice" packs.  
Submit at least 250 microliters of urine for best results.

