



## Animal Health Diagnostic Center

College of Veterinary Medicine, Cornell University  
In Partnership with the NYS Dept of Ag & Markets

US Postal Service Address:      Courier Service Address:  
PO Box 5786                              Upper Tower Rd  
Ithaca, NY 14852-5786                Ithaca, NY 14853

### Laboratory Operations

Phone: 607-253-3900  
Fax: 607-253-3943  
Web: [diagcenter.vet.cornell.edu](http://diagcenter.vet.cornell.edu)  
E-mail: [diagcenter@cornell.edu](mailto:diagcenter@cornell.edu)

# Transport Media for Diagnostic Sampling

### **Amies Bacterial Transport Medium and swab, with charcoal**

These transport tubes are ideal for maintaining survival during transport of most aerobic bacterial agents. Charcoal helps eliminate metabolic products of bacterial growth, which may be especially useful in the isolation of fastidious organisms. Fecal *Campylobacter* organisms survive well in Amies medium. This medium is appropriate for Fungal Culture. This media is not suitable for anaerobic transport, despite some commercial labeling.

### **Amies Bacterial Transport Medium and swab, without charcoal**

These transport tubes and swabs are ideal for the isolation of *Mycoplasma* and *Ureaplasma* organisms. Survival is maintained by the Amies medium, and laboratory personnel are not hindered in detection of the colonies by the presence of black charcoal residue. This medium is appropriate for Fungal Culture. This media is not suitable for anaerobic transport, despite some commercial labeling.

### **Anaerobic Bacterial Transport Medium, with swab or for fluid (BBL™ Port-A-Cul™)**

This medium enhances the recovery of anaerobes from fluids, swabs or small tissue inoculants by excluding oxygen and supporting growth. Once inoculated, chilling should be avoided, as it reduces anaerobe isolation. Use this medium for isolation of GI, tissue, cavity or wound anaerobes. Aerobic and fungal cultures can also be performed from this medium. Inoculate this media with the tube held vertically to avoid loss of oxygen-excluding gas cap.

### **Blood Culture Bottles for Aerobic and Anaerobic Culture**

These bottles are used to enhance recovery of organisms causing bacteremia/septicemia. Separate media bottles are used for aerobic and anaerobic isolations. The bottle can be inoculated with a sample volume between 0.1 and 5.0 ml, making these appropriate for both small animals and adult livestock species. A fact sheet on blood culture technique is provided by our supply department when these bottles are purchased. This medium is also appropriate for Fungal Blood Culture.

### **Para-Pak® Fecal Transport Medium**

This medium is used for fecal culture where isolation of *Salmonella*, *Shigella* and *Yersinia* are organisms of primary concern. The medium is buffered to prevent pH changes that can reduce survival of these organisms. The pH of bovine feces, especially, can reduce quickly after collection. It is important not to over fill the container, which would overwhelm its buffering capability. A convenient scoop is integrated into the cap. Use Amies medium for fecal *Campylobacter* isolation. Fresh UNFROZEN fecal samples should be submitted overnight with freezer packs, for fecal virology and parasitology procedures.

### **Urine Lepto FA Transport Vials**

These vials contain boric acid and formate. Preservation of the morphology of *Leptospira* is greatly enhanced, and contaminating overgrowth is minimized. These vials allow you to ship samples by routine courier, without freezer packs. A fact sheet on urine collection procedures for Lepto Urine FA testing is provided with these vials.

### **Viral Transport Medium**

This medium is ideal for viral diagnostic swab submission. Ocular, respiratory and tissue swabs can be submitted in this medium. Fluid samples such as tracheal wash specimens or peritoneal fluid should be submitted as is, in sterile vials which prevent dessication. Fresh UNFROZEN fecal samples should be submitted overnight with freezer packs, for fecal virology procedures. In the absence of viral transport medium, submit swabs in sterile, sealed vials with several drops of saline added, to prevent dessication. Bacterial transport medias are not appropriate for virology. Cotton, plastic, wood-handled, and Dacron and other synthetic swabs are all acceptable. Calcium alginate swabs should be avoided.

(continued)

### ***Campylobacter fetus* (Vibrio) Transport Medium**

Clark's Transport Medium is supplied for *C. fetus* culturing from either male or female reproductive tracts. Lactated Ringer's solution is used to perform the flushing steps. Clark's medium is shipped to the lab unrefrigerated, and the specimen can be held no longer than 3 days. Clark's medium has a short expiration period and should only be ordered just prior to anticipated use. Culture fact sheets are provided for culturing either bulls or cows. Additional supplies for sampling procedures are also available.

### ***Trichomonas* Transport Medium**

The InPouch™ TF system is supplied for *Trichomonas foetus* culturing from either male or female reproductive tracts of cattle, or feces of cats/kittens. Lactated Ringer's solution is used to perform the flushing steps when culturing cattle for both *C. fetus* and *T. foetus*. This medium is shipped to the lab unrefrigerated. Culture fact sheets are provided for culturing bulls, cows or cats. Additional supplies for sampling procedures are also available. Please indicate species to be tested when ordering these pouches.

### **BVD ear notch medium tubes**

These snap-top plastic vials contain phosphate buffered saline. It is more convenient to put ear notches in these than to use blood collection vials, they fit easily into our laboratory's rack systems, and having the pre-filled media omits one lab step after they arrive here. You can submit ear notch samples in dry blood tubes, or use these vials. This testing is performed on cattle samples only, and not camelid samples.

### **Swabs for PCR**

Do not place swabs in bacterial transport medias. Swabs may be submitted in glass or plastic vials. Dacron or other synthetics may have an advantage when ELISA-technology tests may also be requested. Calcium alginate swabs are not suitable for PCR testing. If virus isolation will also be requested on the same swab, prevent dessication by sending in a sealed, sterile vial with several drops of saline.

### **Fresh Tissues and Feces**

Fresh tissues and body fluids can be submitted for microbiology. Fresh UNFROZEN fecal samples should be submitted, overnight, with freezer packs, for fecal virology and parasitology procedures. Package tissue samples individually, in sealable bags or leak-proof containers, to prevent cross-contamination among different tissues. While freezing would minimize bacterial overgrowth in samples to be held for several days, it may eliminate the ability to isolate many viruses. Viral FA procedures can be performed on previously frozen tissues. Chunky specimens will allow surface decontamination and culture sampling deep in the tissue, which will minimize contamination. This is especially important with tissue anaerobes, such as with clostridial myositis. In the absence of anaerobic transport media for GI anaerobic culture, collect an intact loop of bowel, with both ends tied off to exclude air and maintain gut contents, and freeze promptly. Submit with freezer packs or dry ice by overnight courier. If also submitting tissues for histopathology, prompt fixation after collection will minimize additional autolysis and maximize the ability to achieve a diagnosis. For fecal clostridial toxin tests, submit fresh, frozen fecal specimens overnight, with freezer packs.

<b>Media Available from the Animal Health Diagnostic Center</b>
Amies bacterial transport medium, with charcoal
Amies bacterial transport medium, w/o charcoal (Mycoplasma/Ureaplasma cultures)
Anaerobic bacterial transport medium, with dacron swab (Port-A-Cul™)
No. 1 EZ DRAW® blood culture bottle, 40 mL, aerobic (used for 0.1 - 5.0 mL blood volumes)
No. 2 EZ DRAW® blood culture bottle, 40 mL, anaerobic (used for 0.1 - 5.0 mL blood volumes)
Viral transport medium, for swabs
Vibrio transport medium (Clark's medium)
Trichomonas transport medium InPouch™(request bovine or feline)
Lactated ringers (for vibrio and trich)
Para-Pak® fecal transport medium (for Salmonella, Shigella, Yersinia)
Tubes and media for ear notch testing, with shipping box (minimum 20 tube order)
Lepto 30 mL urine transport vial with preservative

Call 607-253-3900 for advice on special sample preparation, or when unusual conditions may impact diagnostic testing, such as long holiday weekends, delayed necropsies, multiple test requests on small samples, etc.