



### Molecular Diagnostics General Guidelines - PCR Testing

- 1) Please submit samples as soon as possible for testing as degradation can affect testing quality.
- 2) Keep samples refrigerated before shipment.
- 3) Please keep samples cold during transport (i.e. ice pack) (*Tritrichomonas* exception).
- 4) Write name on submitted sample.

\*A discount is offered for some tests when submitting several samples, call LADDL for details.

Results are reported within 2 business days.

For additional testing in other departments please submit additional samples according to the guidelines for that department. If you have any questions, please call LADDL at (225) 578-9777.

### IMPORTANT NOTE

**Recently vaccinated animals may give a false positive result by PCR, please interpret results accordingly.**

Sample Type	Submission Requirements
CSF (cerebral spinal fluid)	At least 0.5ml in a sterile tube such as red top (EDTA acceptable but not recommended)
Swabs	<ul style="list-style-type: none"> <li>- Use non-culture swabs</li> <li>- <b>Preferred:</b> flocked swabs</li> <li>- <b>Acceptable:</b> foam, polyester, rayon swabs on plastic handles</li> <li>- <b>Not Recommended:</b> cotton swabs and wooden handled swabs</li> <li>- <b>NO</b> growth/culture medium, transport medium, or agar on swab or in tube</li> <li>- <b>NO</b> calcium alginate swabs</li> <li>- Send a double swab or 2 single swabs if possible</li> <li>- Send in red top tube or EDTA tube (lavender top) or broken off in a microcentrifuge tube or other capped tube.</li> </ul>
Tissue	25-100 mg of fresh or frozen tissue with <b>NO</b> preservatives or formaldehyde
Tracheal wash	At least 5 ml in a sterile tube such as red top (EDTA acceptable but not recommended)
Urine	At least 5 ml in an EDTA tube (red top tube acceptable but not recommended)
Whole blood	2-4 ml in Vacutainer® with EDTA (lavender top) For blood under 1 ml use a Microtainer® with EDTA (lavender top) <b>DO NOT</b> send serum

<b>Bacteria</b>	<b>Preferred Sample Submission</b>	<b>Price</b>
Anaplasma marginale	Whole blood, tissue (spleen, lung, liver, kidney).	\$35
Anaplasma platys	Whole blood.	\$52
Bartonella henselae	Whole blood, tissue (spleen).	\$40
Chlamydomphila psittaci	Ocular, cloacal or choanal swab, tissue.	\$40
Chlamydiaceae (including C. muridarum, suis, psittaci, abortus, felis, pecorum, pneumonia, trachomatis, caviae) - positive result only, doesn't specify which species	Ocular, cloacal or choanal swab, tissue.	\$40
Ehrlichia canis	Whole blood (buffy coat from EDTA blood), tissue (spleen, kidney, bone marrow). Please submit a WBC count with the blood sample or buffy coat, if possible.	\$40
Francisella noatunensis	Fish tissue (spleen, kidney).	\$36
Leptospira spp. (pathogenic) - positive result only, doesn't specify which species	Blood (1 <sup>st</sup> week of illness), urine or tissue (kidney).	\$46
Mycoplasma genus sequencing PCR	Nasal swab, tissue, fluid.	\$86
Mycoplasma bovis	Nasal swab, tissue, fluid.	\$40
Mycoplasma gallisepticum	Tracheal or palatine cleft swab.	\$40
Mycoplasma synoviae	Tracheal or palatine cleft swab.	\$40
Rhodococcus equi	Nasal swab, tracheal wash, tissue.	\$53
Streptococcus equi equi	Nasal swab, tracheal wash, tissue.	\$47

<b>Parasites</b>	<b>Preferred Sample Submission</b>	<b>Price</b>
Tritrichomonas foetus	Use InPouch TF from BioMed Diagnostics. Bovine preputial sample following InPouch TF directions. See 'Tritrichomonas foetus Testing Guidelines' page for more information.	\$33
Trypanosoma cruzi	Whole blood (buffy coat from EDTA blood), tissue.	\$47

<b>Other</b>	<b>Preferred Sample Submission</b>	<b>Price</b>
Canine c-kit PCR mutation exon 11	Canine MCT FFPE samples.	\$75

<b>Virus</b>	<b>Preferred Sample Submission</b>	<b>Price</b>
Avian Influenza Virus (AI)	Diagnostic testing for properly submitted samples. See end of document for submission requirements.	\$46
Bluetongue Virus (BTV)	Whole blood or vascularized tissue (spleen, lung).	\$48
Bovine Leukemia Virus (BLV)	Whole blood (buffy coat) or tissue (spleen, liver, lymph node).	\$41
Bovine Viral Diarrhea Virus (BVDV)	Whole blood (buffy coat) or lymphatic tissue (i.e. spleen, thymus).	\$46
Bovine Respiratory Syncytial Virus (BRSV)	Nasal swabs, tissues (lung), bronchoalveolar lavage.	\$40
Canine Distemper Virus (CDV)	CSF, tissue (brain, lung, spleen), nasopharyngeal swab, nasopharyngeal wash.	\$53
Canine Influenza Virus (CIV)	Nasal swab, tracheal wash, tissue.	\$53
Eastern Equine Encephalitis Virus (EEE)	Mammalian tissue (brain stem), avian oropharyngeal swab, avian tissue (brain, kidney, spleen), avian whole blood.	\$53
Epizootic Hemorrhagic Disease (EHD)	Whole blood or vascularized tissue (spleen, lung).	\$50
Equine Herpesvirus Type 1 (EHV-1)	Nasal swab, tracheal wash, tissue, whole blood or buffy coat from EDTA or citrated blood. Please submit a WBC count with the blood sample or buffy coat sample, if possible. For increased likelihood of detection, a nasal swab AND a buffy coat is recommended.	\$53
Equine Herpesvirus Type 4 (EHV-4)	Nasal swab, tracheal wash, tissue.	\$50
Equine Influenza Virus (EIV)	Nasal swab, tracheal wash, tissue.	\$53
Equine Rhinitis A Virus (ERAV)	Urine, nasal wash or pharyngeal swab.	\$40
Exotic Newcastle Disease (END) Avian Paramyxovirus Type 1 (APMV-1)	Diagnostic testing for properly submitted samples. See end of document for submission requirements.	\$46
Feline Herpes Virus (FHV)	Ocular swab, nasopharyngeal swab, nasopharyngeal wash, tissue (lung, trachea, turbinate, spleen, tonsil).	\$46
Infectious Bovine Rhinotracheitis (IBR / BHV-1)	Bovine semen, nasal swabs, tissue.	\$39
Infectious Laryngotracheitis Virus (ILTV)	Trachea swab, tracheal wash, tissue.	\$46
West Nile Virus (WNV)	Avian whole blood, avian oropharyngeal swab, avian tissue (brain stem, kidney, spleen), mammalian tissue (brain).	\$53
White Spot Syndrome Virus (WSSSV)	Whole crawfish, refrigerated or frozen the day of capture. 60 animals for a cultivated pond survey, 120 animals for a wild-caught survey. Please call lab for more instructions.	\$23

Submission requirements for AI and END/APMV-1 PCR testing**		
Sampling source	Preferred Specimen	Sample Collection
Gallinaceous poultry (e.g., chickens, turkeys, pheasants, quail)	<b>Tracheal or oropharyngeal (TR/OP) preferred</b>	<ul style="list-style-type: none"> <li>• FOR FADs – typically 5 swabs/ pool in at least 3 mls of BHI.</li> <li>• Up to 11 swabs/pool in at least 5.5 mls of BHI pooled by sample route and species for TR/OP swabs from gallinaceous species only.</li> </ul>
	Cloacal swab (CL) may be used	<ul style="list-style-type: none"> <li>• Up to 5 swabs/pool at least 3 mls of BHI pooled by sample route and species.</li> </ul>
Domestic waterfowl (production)	<b>CL preferred</b> , TR/OP swab may be used	<ul style="list-style-type: none"> <li>• Up to 5 swabs/pool from a single flock and species in at least 3 mls of BHI.</li> </ul>
Wild/captive waterfowl species	<b>TR/OP and CL</b> swabs may be used	<ul style="list-style-type: none"> <li>• Collect USDA Wildlife Services Surveillance samples by pooling 1 CL and 1 OP swab from a <b>single bird</b> in one 3 ml BHI tube; this approach may also be used for captive waterfowl that are openly housed.</li> <li>• Captive flocks in closed, common housing may be pooled 5 swabs/pool in at least 3 mls BHI by sample route and <b>species</b>.</li> </ul>
Other wild/free living/captive /pet species	Typically <b>CL swabs</b> ; fresh fecal samples may be used – call the NVSL for guidance	<ul style="list-style-type: none"> <li>• Captive flocks in closed, common housing may be pooled 5 swabs/pool in at least 3 mls BHI by sample route and <b>species group</b> (e.g., passerines).</li> </ul>
Any avian species	Tissue samples	<ul style="list-style-type: none"> <li>• Pool by system from a <b>single bird</b> (e.g., respiratory, enteric, reproductive) - mince tissue and place in 3 mls BHI.</li> </ul>
<p><b>**For more information, see the official document:</b>  <a href="https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/WIAV0020.pdf">https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/WIAV0020.pdf</a></p> <p>Check for the newest version of the above document on the government website:  <a href="https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/ct_fadprep">https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/ct_fadprep</a>.</p>		

Surveillance
Surveillance testing only under special circumstances, with prior arrangements.
Avian Influenza virus
Classical Swine Fever virus
Exotic Newcastle Disease (END) Avian Paramyxovirus Type 1 (APMV-1)
Foot and Mouth Disease Virus
Swine Influenza