LADDL Molecular Diagnostics (PCR) Testing

Sample Submission Guide:

Below are the preferred specimens for each test. Under special circumstances we can test other specimens however, please contact the laboratory before submitting. Please submit all samples as soon as possible for testing as degradation can affect testing quality. Likewise, please keep samples cold during transport. As a general rule RNA samples are more fragile than DNA samples. Please send paired (duplicate) samples for each test requested. Anticoagulants other than EDTA or citrate can inhibit PCR. 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.

DNA Samples

Agamid adenovirus 1 (AAdv1): Fecal swab*, feces

Anaplasma platys: Whole blood (EDTA or citrate), or platelets

Bartonella: Whole blood (EDTA or citrate), tissue (spleen)

Chlamydia: (C. psittaci, C. felis, C. abortus, C. suis, and C. muridarum): Ocular swab*, cloacal or choanal swab*, tissue (liver or spleen)

Ehrlichia canis: Whole blood (EDTA or citrate), tissue (buffy coat from EDTA or citrated blood, spleen, kidney, bone marrow). Please submit a WBC with the blood sample or buffy coat, if possible.

Equine herpesvirus type 1: Nasal swab*, tracheal wash, tissue, whole blood (EDTA or citrate) or buffy coat from EDTA or citrated blood. Please submit a WBC with the blood sample or buffy coat sample, if possible. For increased likelihood of detection, a nasal swab AND a buffy coat is recommended.

Equine herpesvirus type 4: Nasal swab*, tracheal wash, tissue

Feline Herpes Virus: Ocular swab*, nasopharyngeal swab*, nasopharyngeal wash, tissue (lung, trachea, turbinate, spleen, tonsil)

Rhodococcus equi: Nasal swab*, tracheal wash, tissue

Salmonella: Swab*, tissue, joint fluid, fecal swab*, feces

Streptococcus equi equi: Nasal swab*, tracheal wash, tissue

Whitespot Disease Virus: 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.

* Please submit swab samples for PCR without any transport medium. You may break off the swab and send in a red-top vacutainer tube, or other test tube. See next page for tube examples.

RNA Samples

Avian Influenza virus: Diagnostic testing for properly submitted samples. See below for submission requirements. Surveillance testing only under special circumstances, with prior arrangements.

Canine Distemper Virus: CSF, tissue (brain, lung, spleen), nasopharyngeal swab*, nasopharyngeal wash. *Recently vaccinated animals may shed vaccine. Please interpret results accordingly.*

Classical Swine Fever virus: Not for diagnostic testing. Surveillance testing only under special circumstances, with prior arrangements.

Eastern Equine Encephalitis Virus: Avian blood (EDTA or citrate- call for instructions for blood volumes under 1ml), avian oropharyngeal swab*, avian tissue (brain, kidney, spleen) mammalian tissue (brain stem)

Equine Influenza virus: Nasal swab*, tracheal wash, tissue

Exotic Newcastles Disease (Avian Paromyxovirus Type –1): Diagnostic testing for properly submitted samples. See below for submission requirements. Surveillance testing only under special circumstances, with prior arrangements.

Foot and Mouth Disease Virus: Not for diagnostic testing. Surveillance testing only under special circumstances, with prior arrangements.

Infectious Bronchitis Virus: Trachea, trachea swab*, respiratory tissue.

St. Louis Encephalitis Virus: Avian blood (EDTA or citrate- call for instructions for blood volumes under 1ml), avian oropharyngeal swab*, avian tissue (brain, kidney, spleen)

West Nile Virus: Avian blood (EDTA or citrate- call for instructions for blood volumes under 1 ml (1 cc)- as seen in wild-bird surveillance), avian oropharyngeal swab*, avian tissue (brain stem, kidney, spleen), mammalian tissue (brain)

Submission requirements for AI, APMV-1 or END PCR testing. If samples do not meet these requirements we can not test them.

Oropharyngeal/Tracheal Swab: (Preferred sample)
Swabs from up to 5 birds per tube in 2 ml BHI broth. Mix each swab well into broth for at least 30 seconds, carefully squeeze all available moisture from swab into tube. Keep broth cold while sampling and during shipping and submit within 24 hrs of harvest. Please assure tube caps are on tightly.

Tissue sample (AI: spleen, lung, intestine; END: spleen, lung, intestine, brain):
One bird per tube- no pooling of samples. 5mm^3 tissue cube per 2 ml BHI broth. Submit fresh tissue (submitted within 24hrs of harvest) cold or freeze and transport frozen. Please assure tube caps are on tightly.

BHI tubes are available from the diagnostic lab with 10 days prior notice.

Molecular Diagnostics Swab Samples

Good Swabs

220135 (double swab, no media)

220115 (single swab, no media)
*please send 2 single swabs per sample

Bad Swabs

220145 foam applicator, no media

Or any swab with media:

DCNWP 12.00

Swabs for Molecular Diagnostic need to be cotton, Dacron (polyester), or rayon and should be sent without any additional media. A swab dipped in saline before sampling (ocular swabs) would be OK, but this is not preferred.

Swabs broken off in a microcentrifuge tube, or broken off in a red-top vacutainer are good.

Swabs for Molecular Diagnostics can't have any agar, bacterial growth medium, charcoal or other growth medias. Foam applicators have not been validated.

Exceptions: Avian Influenza, Exotic Newcastle's Disease (BHI broth) or CSF or FMD testing (MEM or DMEM media)

Catalog #'s given are for

BD

(800) 675-0908

If the wrong swab type is inadvertently sent to the laboratory the clinician will be contacted to see if a new specimen should be submitted. The PCR can still be performed but there may be a loss in sensitivity. It is difficult to quantify the loss in sensitivity but non-agar samples may lose 10-50% sensitivity. Agar samples would be expected to lose more. Alternatively, the sample could be redirected to Bacteriology or Virology as needed. Please note that Virology samples are best submitted in sterile saline.