



FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES COMMISSIONER WILTON SIMPSON

Equine Herpes Virus (EHV) Testing Bronson Animal Disease Diagnostic Laboratory (BADDL) by Realtime Polymerase Chain Reaction (RT-PCR)

The BADDL offers two real-time PCR assays for the detection of EHV-1 and EHV-4:

- **Sample Collection**

- It is important to collect the appropriate clinical samples. The preferred specimens for the real-time EHV-1 and EHV-4, RT-PCR assay are nasal swabs or whole blood. For all neurological cases, nasal swabs and whole blood should be submitted. A fresh brain sample may also be tested in neurologic cases. Fetal tissue, including lung and spleen can be performed on aborted fetuses in suspected EHV-1 cases.
- Whole blood must be collected in ethylenediaminetetraacetic acid (EDTA) (preferred) or heparin tubes. A minimum of 10 ml of whole blood must be submitted.

- **Collection Procedure**

- Safely restrain horse.
- Pass nasal swab at least 6" (15 cm) into the horse's nasopharynx via the ventral meatus to absorb respiratory secretions *for at least one minute*. Insert the swab as far as it will go in the ventral meatus. Avoid the blind pouch just adjacent to the nostril.
- Cut off swab end and drop into the transport media.
- Both nostrils should be swabbed. One swab can be used for both nasal passages.
- Be sure to label your specimens clearly and to fill out the accession form completely including listing the tests you want run (e.g., PCR test for EHV-1 or PCR for EHV-1 and 4).

- **Shipping/Transport**

- Nasal swabs should be transported to the laboratory in viral transport medium containing antibiotics. While this is the preferred method of PCR submission, if no viral transport media is available, place the cotton tip in a red top tube with 1-2 drops of sterile saline.
- Polyester tipped metal or plastic sticks (synthetic material on a synthetic shaft) are the preferred type of swabs. Wood contains inhibitors that affect the assay. Do not leave wooden shafted swabs in the virus transport medium.

- The specimens must be kept chilled (wet ice or cold gel packs) and shipped overnight in a cooler with multiple ice packs. If samples cannot be sent until the following day, they should be refrigerated but do not freeze. Samples must be received cold for results to be valid.
- Physical delivery and shipping address: BADDL – 2700 N. John Young Parkway, Kissimmee, FL 34741-1266.
- **Turnaround time (TAT)**
 - Expected turnaround time for receiving results is 1-4 days. Please contact the Molecular Biology Section (321-697-1411) at Bronson Animal Disease Diagnostic Laboratory with any further questions.
- **Cost**
 - BADDL PCR testing for EHV-1 is \$30 per sample per test.
 - Each sample will be tested for both neurologic and non-neurologic EHV-1
 - Total charge is: \$120 per horse for nasal swab and whole blood.
 - BADDL EHV-4 PCR testing is \$30 per sample, thus \$60 per horse (nasal swab and whole blood).