



## Canine Influenza Diagnostic Frequently Asked Questions

### What samples should be collected from a sick dog to detect the influenza virus?

- **Within 5 days of clinical onset: Use PCR and hold serum**
  - Nasal and Pharyngeal swab-place in red top tube with a few drops of saline
  - Clot tube to hold for antibody titer if needed
- **10 days or more since clinical onset: Use serology to detect antibodies**
  - serum sample (red-topped blood collection tube; separate and save serum, hold at refrigeration temperatures).
  - A convalescent sample 10 days after presentation (= $\geq$ 20 days after onset) should be collected
  - Both samples can be submitted for Influenza A antibody titers
- **If the dog has been sick between 5 and 10 days: Use a combination of PCR and serology**
  - Collect both samples above
  - Hold the serum and submit the swab for Influenza A PCR
  - Submit serum after collection of convalescent sample

### What tests can be performed at Cornell?

#### Influenza A PCR:

- [Canine influenza PCR](#), which will identify any influenza A virus, including H3N8 and H3N2 strains.
- For more comprehensive testing, request the [Canine Respiratory PCR Panel](#) which tests for most common respiratory pathogens found in dogs, including influenza A.
  - All Influenza positive samples will be further characterized. Results will be provided on an addended report within 3-5 days of the original result in most cases. Some positive samples may require additional sequence analysis. This may take several weeks to complete.
  - All samples with positive influenza tests will be further characterized, with typing results available in most cases within a few days of the original result. Some samples may need additional testing to determine the strain type involved. If this is the case, clients will be notified and results will be provided as soon as possible. No additional fees are charged for virus typing.

#### Influenza A serology:

- [Canine Influenza HI](#) test (HI stands for hemagglutination inhibition). This test detects antibodies against influenza viruses.
  - Samples are tested for antibodies to H3N2 and H3N8 viruses
  - There may be limited cross reaction.
  - Dogs previously vaccinated with a canine influenza vaccine may have a titers, but these are typically low.
  - Dogs recovered from an influenza infection will have a higher titer.



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### **How should the samples be shipped to the lab?**

We recommend shipping for next day to expedite [Canine influenza PCR](#) testing. If samples are in transit for several days, they will still be suitable for PCR testing. If virus isolation may also be requested, next day delivery is important.

Serum samples for [Canine Influenza HI](#) testing should be shipped with freezer packs for next day delivery if the serum is still in a tube with the clot. If the serum has been separated and chilled, it can be placed in an insulated mailer and shipped via most routine priority mail or courier delivery services without freezer packs and will be suitable for testing on arrival.