

Collection of Samples for SARS-CoV-2 Testing

Biosecurity:

Observe appropriate biosecurity procedures¹ and use the appropriate personnel protective equipment (PPE). All waste and disposable PPE should be contained and disposed of appropriately.

Sampling guidelines:¹

Routine sampling and testing of animals without clinical signs is not recommended unless part of an approved research project. Contact your veterinary diagnostic laboratory prior to sending samples.

PCR is a sensitive diagnostic tool for identification of nucleic acid of respiratory pathogens on swabs. Care should be taken in collection of swabs to avoid contamination. ***Clean exam gloves should be worn during collection of swabs and the gloves should be changed between EACH ANIMAL to avoid cross contamination.***

1. Viral Transport Media

- Viral transport media (VTM) such as brain heart infusion broth (BHI) other protein-rich VTM is recommended where virus recovery is needed
- Dry swab specimens should be avoided
- Where virus recovery is not needed, transport media to inactivate virus and preserve nucleic acid is commercially available, eliminating cold chain needs and biosafety and biosecurity concerns while maintaining sample integrity

2. Swab collection

- Use synthetic swabs (e.g., polyester, rayon, nylon) with a plastic handle (spun head²)
- 3 swabs are collected per animal
 - Oral, nasal, and rectal swabs are recommended by OIE; consider oropharyngeal and/or nasopharyngeal swabs
 - Each sample is stored in a separate media tube, samples are not pooled
 - Each swab is placed in up to 3ml of VTM or BHI media
- Clearly label containers with appropriate ID using a waterproof marker or other label
- Place each sample container into a zip-lock bag

3. Serum collection (optional)

- Collect serum in a red top tube

4. Sample transfer and storage

- Transfer swabs and serum samples on frozen gel ice packs in an upright position
- Short term storage at 4C or longer at -70C (-20C not recommended)

5. Package and ship the samples per International Air Transport Association procedures for animal diagnostic samples

¹ <https://www.avma.org/resources-tools/animal-health-and-welfare/covid-19/covid-19-keeping-veterinary-teams-healthy>

² Refer to FAQ for decision to test https://www.aphis.usda.gov/animal_health/one_health/downloads/faq-sapho-on-companion-animal-testing.pdf

³ Flocked swabs are currently reserved for human use.