

# Sample preparation procedure

## For onsite self-testing laboratory

This recommended protocol is intended for use with samples collected using the Thermo Scientific™ AerosolSense™ Sampler. The procedure includes instructions on the safe handling and processing of the sample from arrival to a state that is ready for the below kits:

- Applied Biosystems™ TaqPath™ COVID-19 Combo Kit
- Applied Biosystems™ TaqMan™ SARS-CoV-2, FluA, FluB RT-PCR Assay Kit
- Applied Biosystems™ TaqMan™ SARS-CoV-2, Flu A/B, RSV RT-PCR Assay Kit

### Required Equipment (not included)

- Sterile tweezers
- One of the following media:
  - 1x Phosphate-Buffered Saline (PBS).
  - Viral Transport Media (VTM). See the CDC page for the Standard Operating Procedure (SOP) to create the VTM.
- 5mL centrifuge tubes
- Vortex mixer
- Sealing film
- Thermo Scientific™ KingFisher™ Flex Purification System with Applied Biosystems™ MagMax™ Viral/Pathogen Nucleic Acid Isolation Kit (MVP II)
- TaqPath COVID-19 Combo Kit
- TaqMan SARS-CoV-2, FluA, FluB RT-PCR Assay Kit
- TaqMan SARS-CoV-2, Flu A/B, RSV RT-PCR Assay Kit



**WARNING: FOLLOW CDC GUIDELINES FOR LABORATORY STANDARD WHEN CONDUCTING ENVIRONMENTAL SPECIMEN TESTING.**

### Procedure

All steps must be completed once the procedure is started.

1. Remove the cap from the sample cartridge.
2. With the collection substrate in the cartridge facing up, slowly push in the plunger.
3. Using sterile tweezers, transfer the two pieces of collection substrate to a 5mL sample tube.
4. Safely dispose of the cartridge and cap into biohazard disposal.
5. Add 1mL of Phosphate-Buffered Saline (PBS) or Viral Transport Media (VTM) to the sample tube.
6. Using sterile tweezers, push down on the substrates several times to distribute the liquid.
7. Close the tube and seal the interface between the tube and the lid.
8. Vortex the sample tube for ~10 seconds.
9. Using the pipette tip, compress the collection substrates in the sample tube.
10. Follow the isolation kit instructions utilizing 200µL to 400µL of the sample, depending on process used. **It is recommended to use 50µL of Elution Solution.**
11. The sample is now ready to be processed with the TaqPath COVID-19 Combo Kit, TaqMan SARS-CoV-2, FluA, FluB RT-PCR Assay Kit or TaqMan SARS-CoV-2, Flu A/B, RSV RT-PCR Assay Kit. Follow the kit instructions. **It is recommended to use 20µL reactions for RT-PCR.**

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