



COMPATH

SAMPLE SUBMISSION GUIDELINES

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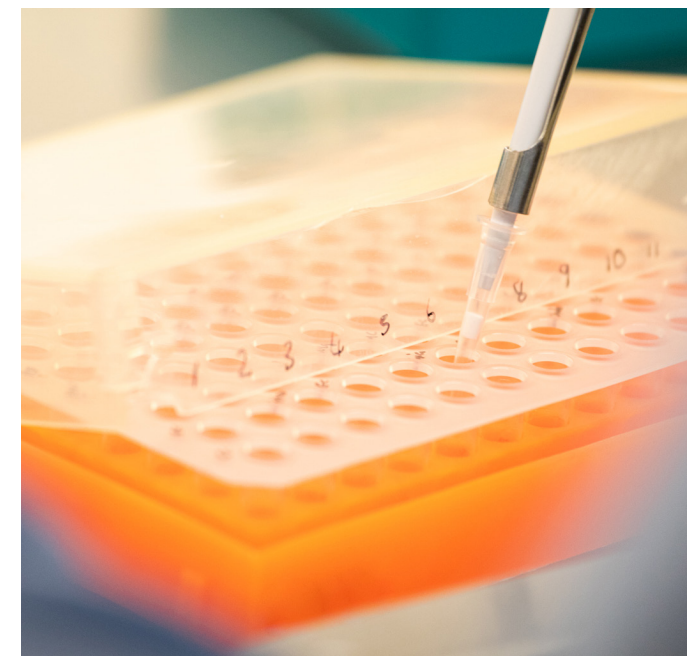
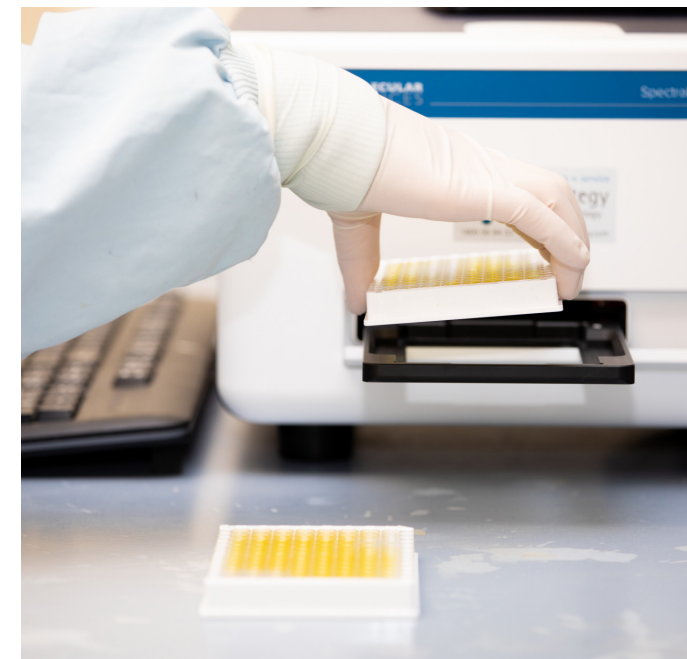
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Introduction

Accuracy of results is heavily dependent upon sample collection technique, storage and transport conditions.

Improper collection may result in sub-optimal samples, insufficient volume, or contamination.

Storage of samples at the wrong temperature could render the samples unfit for testing, introduce artefacts, allow bacterial overgrowth, or result in degradation of the sample.

Similarly, incorrect transport conditions could result in any of the above effects, or even loss of the sample if not packaged carefully.

The following guidelines are designed to ensure optimal sample collection and storage, as well as providing suggestions on ideal transportation requirements. This will greatly increase sample integrity upon arrival and therefore increase accuracy of results.



Serology Samples

Serum

Collect blood from animal via appropriate ethics-approved technique e.g. cardiac puncture, submandibular bleed etc, into a clean microcentrifuge tube. Leave blood to clot on bench at room temperature for 1+ hours. Invert blood tube to check for clot. If blood has clotted, centrifuge tubes at 6000 rpm or 1500 g for 10 minutes.

If blood has not clotted, place in fridge (4°C) overnight before centrifugation. Following centrifugation, carefully remove the serum (supernatant) and place in a clean, labelled microcentrifuge tube.

Unfrozen serum samples can be sent to the laboratory with ice packs. Frozen samples should ideally be kept frozen while in transit.

Note: *approximately half the volume of whole mouse blood is serum. 10µl of serum is required for every 4 agents to be tested by EIA. (M-Quarantine panel = 21 agents = ~50µl serum).*



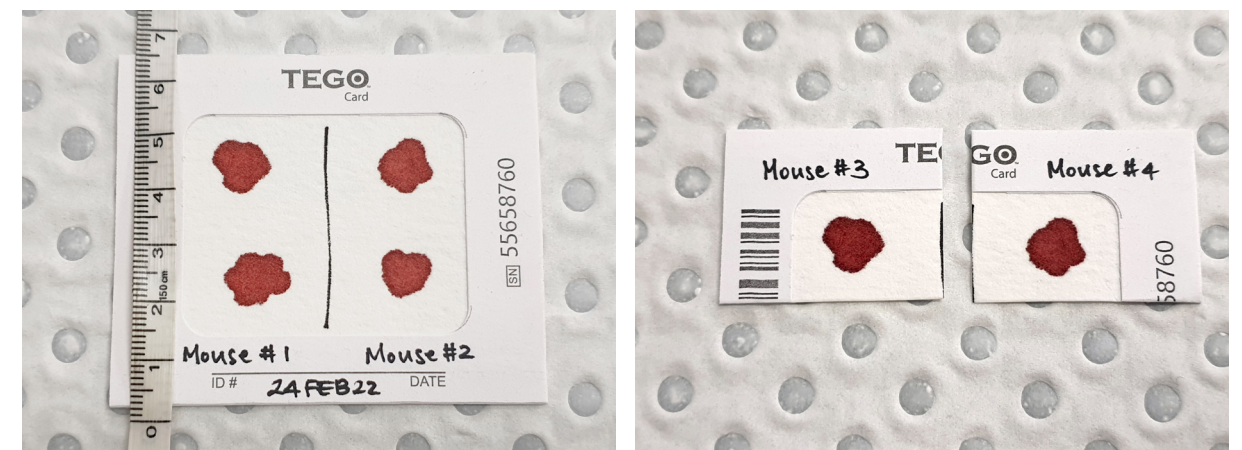
Dried Blood Spot

Collect blood from the animal with appropriate ethics-approved technique e.g. tail vein, submandibular bleed etc. and immediately transfer or collect directly onto a clean TEGO card. Use a clean lancet or needle with each animal.

Blood spots should ideally be dropped next to each other (not on top of each other) and should look the same from both sides of the card (i.e. soaked through). Multiple samples can be placed on the same card if space allows, or the card may be cut; ensure samples are clearly labelled.

Allow cards to dry fully at room temperature before placing in envelopes. Dried cards can be stored at room temperature or in the fridge before sending to the laboratory at ambient temperature.

Note: *approximately 1 x 6 mm diameter spot is required for every 4 agents to be tested by EIA. (M-Quarantine panel = 21 agents = 5 spots)*



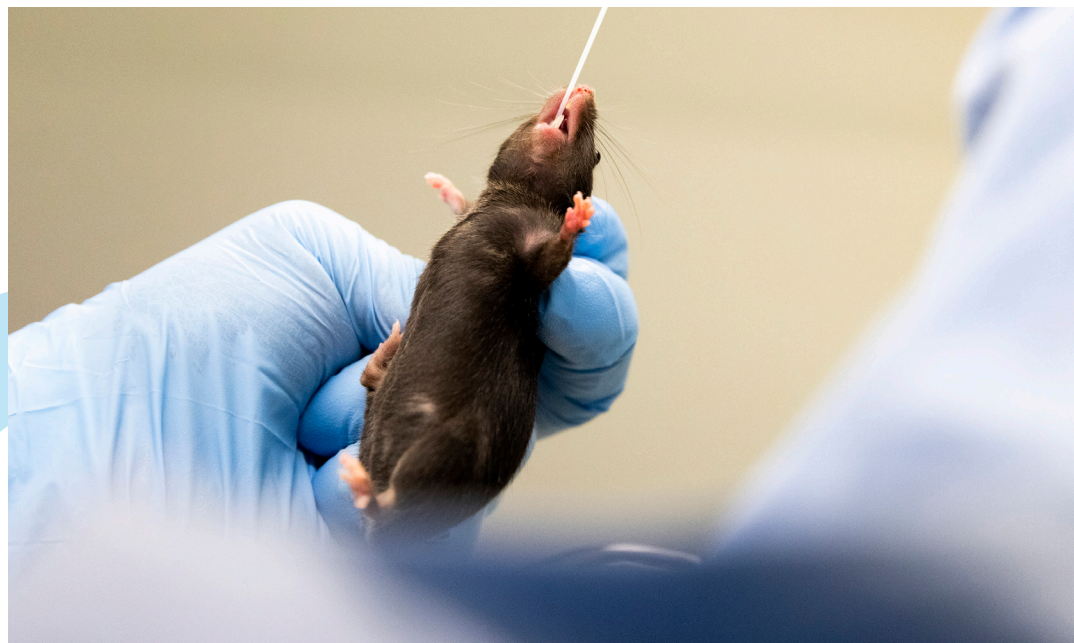
PCR + Bacteriology Samples

Oropharyngeal Swab

Appropriately scruff the animal and use a thin (paediatric) swab to sample down into the oropharynx. Try to avoid swabbing the mouth area.

Dry flocced swabs should be used for downstream PCR applications. PCR samples can be stored at room temperature or refrigerated, and sent at ambient temperature.

Bacteriology swabs should be placed into transport media for downstream culture applications. Culture swabs should be refrigerated and kept cool upon dispatch to the laboratory within 24 hours of collection.



Faeces

Fresh tail lift faeces should be collected for downstream culture applications. To increase organism viability for culture a fresh faecal pellet can be squashed into a tube containing transport media using the swab. Samples for culture should be kept refrigerated and dispatched to the laboratory within 24 hours of collection.

Fresh or cage faecal pellets can be used for downstream PCR applications. Samples for PCR testing should be kept frozen (-80°C ideal for long term) before being dispatched to the laboratory on ice bricks or dry ice. Avoid pooling more than 10 faecal pellets for PCR testing.



Environmental / Exhaust Air Dust

Exhaust air debris collection filters, membranes, or matrices can be placed into an appropriately sized tube. Some commercially available collection filters, such as the Tecniplast Interceptor and Allentown Sentinel, can be sent in their packaged card but should be placed in individual ziplock bags to avoid cross-contamination between samples.

Flocked swabs of plenums, prefilters, dust, or other surfaces can be placed in a microcentrifuge tube with the swab head either snapped or cut so that only the swab head is in the tube. Collect as much debris/dust as the swab will hold from the dirtiest portion of the surfaces being swabbed. Avoid pooling more than 3 flocked swabs for PCR testing.

Alternatively, a 200µl amount of exhaust air dust may be collected and placed directly in a microcentrifuge tube for testing.

Environmental samples can be sent at ambient temperature.



Tissue Samples

Bacterial Culture

Tissue or lesion samples can be sent fresh but need to remain refrigerated and be received by the laboratory within 24 hours of collection.

Samples can also be placed into transport media or sterile saline to prolong viability (up to 48 hours).

Note: Keep samples cool during transport but DO NOT freeze

PCR

A small amount of tissue (no larger than 5mm²) should be placed in a microcentrifuge tube and kept frozen (-80°C ideal for long term) before being dispatched to the laboratory on ice bricks or dry ice.

Note: Formalin-fixed tissues can not be used for PCR

Histopathology

Tissues must be fixed in 10% formalin for histopathology examination. Ensure there is sufficient volume of formalin (10:1) for appropriate fixation and that sample containers are sealed with parafilm and/or enclosed in a ziplock bag to contain spillage.

If sending whole animals (e.g. mouse), please ensure the animal has been cut open in order for the fixative to permeate all tissues.

Formalin samples can be stored and sent at ambient temperature.

Note: DO NOT freeze



Cell/PDX Samples

Cell lines should be provided as 1×10^6 (1,000,000) cells in approximately 1ml of medium in a sterile microcentrifuge tube.

PDX tissue of no less than 15 mg in size should be provided.

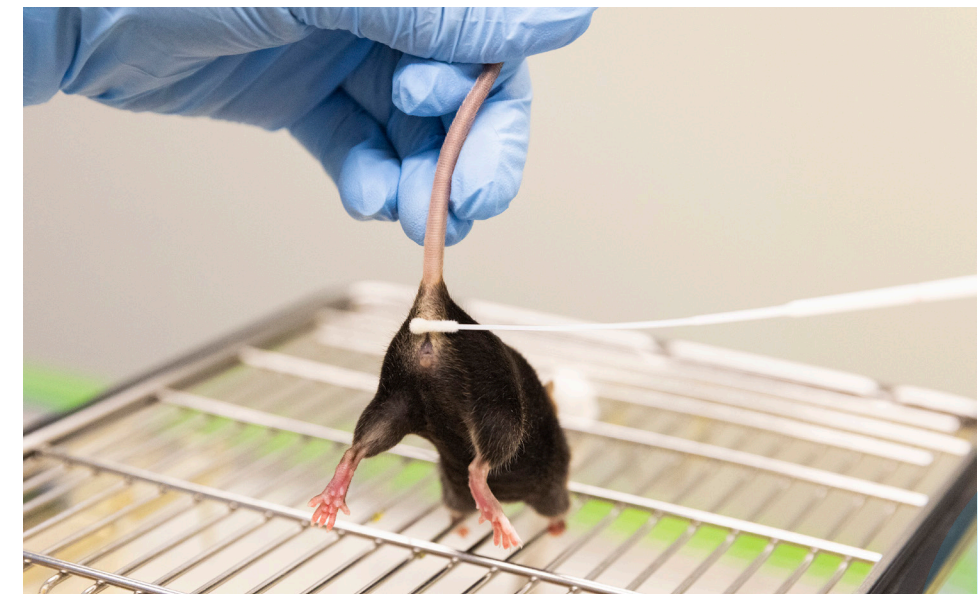
Samples should be kept frozen (-80°C ideal for long term) before being dispatched to the laboratory on ice bricks or dry ice.



Re-Testing

On rare occasions, additional samples may be requested for re-testing. This can be due to many factors, including incorrect sampling, transportation or storage of original samples.

In order to prevent this from happening, please contact the laboratory when in doubt; we are always available to provide advice.



Expertise

We're Here to Help

ComPath has a strong reputation as a leader in Laboratory Animal Science and Health Monitoring testing. We pride ourselves on keeping up with the latest trends in testing and our team of scientists are dedicated to supporting you and your facility by providing free expert advice and consultation on any matter. Our Veterinarian consultants have extensive experience in the management of animal facilities; the advice and insights that can be offered are directly relevant and unmatched by other providers. Whether it is regarding animal health, symptoms, outbreak management, treatment, or minimisation strategies and how to integrate this into your animal facility Standard Operating Procedures, we are your partners in laboratory animal science.

Through our contact network at SAHMRI and SA Pathology we have access to internationally recognised specialists in all fields of testing which we can utilise to confirm results or perform additional services such as bacterial sequencing and comprehensive microbial sensitivity testing.



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