Submitting TSU Samples for Genotyping at the AGL

Companies now market Tissue Sampling Units (TSUs) for DNA analysis. Two versions of the TSU are being offered – dry and wet. The wet TSUs contain a liquid preservative and the dry TSUs do not contain a preservative of any kind.

AGL continues to recommend hair, but will process TSUs if requested. Liquid TSUs are superior for transport and testing due to stability of the tissues (see below).

**Dry TSU**

It is imperative that dry TSUs are collected onto ice and are refrigerated (not frozen) immediately after collection; even 1 week at room temperature is detrimental to success rates at the lab (figure 1).

![Dry TSU success rate (%) at various temperatures](image)

Dry TSUs must be placed in cold storage (e.g. Esky with ice packs) and sent ASAP to maximize their success in the lab. Please inform lab immediately upon dispatch so staff can respond quickly upon arrival.

**Liquid TSU**

Liquid TSUs are stable at room temperature, they do not need to be refrigerated at any stage of the process. Liquid TSUs do not need to be sent in cold storage, they can be sent through the regular post in a normal post pack. We still recommend that they are sent as at the earliest convenience to maximize their success at the lab.
Things to Consider

While AGL routinely performs testing on recollects at no extra cost to the customer, this will not apply if samples do not arrive in appropriate conditions, i.e. those outlined in this factsheet.

Unlike hair, TSUs cannot be stored at the AGL for testing in the future. If retesting is likely in the future, please consider collecting hair at the same time. This will avoid inconvenience and wasted time at both ends.

High-quality DNA extraction and storage of TSUs can be organized at a fee per sample – please contact AGL prior to sample arrival to discuss terms and best options. Alternatively, hair samples can be provided, will be stored at no added cost and would be available in lab should the need for further testing arise.

As the method of extraction for TSUs is more involved and costly than the hair process, a surcharge may apply. Be sure to contact your society or the AGL for the most up to date information.

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