



Sampling for POMV, TSRV, TABV and TRLO real-time PCR

LABFACT SHEET October 2024

Pilchard orthomyxovirus (POMV), Tasmanian Atlantic salmon aquareovirus (TSRV), Tasmanian Aquabirnavirus (TABV) and Tasmanian *Rickettsia*-like organism (TRLO) are viral and bacterial pathogens which may cause disease in Atlantic salmon. Real-time PCR testing is used to detect the genetic material of the viruses and/or bacteria in fish tissues.

Materials Required

- An esky with enough ice bricks to maintain samples at 0–4 °C during transport to the Animal Health Laboratory.
- Sterile dissection instruments.
- RNA stabilisation reagent* - supplied by Animal Health Laboratory. Stable for 1 year from manufacture.

* Note: Commercial RNAlater solution can be used.

Selecting fish for testing

Only moribund fish should be selected for sampling. Samples from dead fish are likely to be degraded, which may affect test results.

Number of fish to be tested

Samples from at least 5 fish should be submitted.

Sample Method

- a) Aseptically dissect each fish to remove a portion of the liver, kidney, and spleen.
- b) Cut the excised tissues into pieces **not more** than 5 mm thick.

Liver Spleen Kidney



Optimal tissue sample size

- c) Place the excised tissues in RNA stabilisation reagent.
- d) The ratio of tissue to RNA stabilisation reagent should not exceed 1:10.
- e) Disinfect instruments between fish with either an alcohol impregnated wipe or an ethanol wash. If safe and practical, heat the instruments over a flame after disinfection.
- f) Do not pool samples from different fish; use one tube of RNA stabilisation reagent for each fish sampled.
- g) Each sample tube should be clearly labelled with the date of collection, fish number, pen number and farm for identification.

(see over)

Packing Submission

- a) Keep samples chilled, on ice, after sampling and during transport.
- b) Pack securely in an insulated box with pre-frozen ice bricks.
- c) Dispatch samples as soon as possible to the Animal Health Laboratory.
- d) Submission information should include submitter identification, reason for submission, and the type of testing required.

Transporting samples

Submission time to the laboratory should preferably be within 48 hours of sampling.

Submitting samples

Submit samples to:
Animal Health Laboratory
NRE Tas
165 Westbury Road
Prospect TAS 7250

E: specimenreception@nre.tas.gov.au

P: 03 6777 2111

For more information visit the AHL website
www.nre.tas.gov.au/AHLabs

