

Procedure for harvesting gill tissue for ATPase qPCR analysis

About sampling:

It's recommended to take samples of minimum 15–20 fish per group. Perform a random selection when landing the fish with a net and avoid selecting the fish located at the center of the basin or by the basin walls. Collect maximum 5–10 fish in a bucket with plenty of water to avoid stressing the fish. Stress and low oxygen levels can influence the ATPase value, so it is important that the fish do not stay in the bucket for too long before the sample is taken. Anesthetics should not be used.

Sampling package:

The package contains an order form, a box with sample tubes, a cooling element and a return label. The sample tubes with sample buffer must be stored at room temperature until sampling. The cooling element must be frozen.

Equipment not included: scalpel, tweezers, container with 10% chlorine solution or clean water, paper towels, and gloves.

Preparations:

Make the table and equipment ready. The smolt index should be assessed in daylight or under proper work light. The sample tubes are numbered and placed in order. Mark the order form with the last three digits of the number on the sample tube.

Sampling:

- Immobilize the fish by hitting it on the head.
- Cut out a 0,5–0,8 cm wide piece from the tip of the second gill arch on the right side (when the fish is lying with its belly up and its head away from you). Put the sample in the tube and make sure it's completely covered by the sample buffer.
- Assess the smolt index (parr marks, silver color, fin edges) and enter the data in the order form.
- Continue with the remaining fish so they don't stay in the bucket for too long.
- When the bucket is empty, the remaining registrations are completed for each fish (weight, length, gut content etc.). Other potentially relevant issues for interpreting the ATPase data, like injuries or signs of illness, can be noted down in the comments field on each sample.
- After sampling, the box should be stored in a cool environment until it is sent back to the lab.

Submitting the sample:

- Put the sample box and the filled-out order form in the included box with the cooling element and send it to Eurofins avd. Sortland, Havnegata 19B, 8400 Sortland.
- Return labels for shipping the samples by *Bring* can easily be ordered on our website: transport.eurofins.no/Food-Feed/Food_Feed_Sortland.

