

Animals  
Agroscope Fact Sheet May 2019

# Protocol sample collection RNA-seq

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This protocol describes the isolation of liver, muscle and jejunum samples for storage in RNAlater or RLT buffer.

## Slaughter

At the Agroscope abattoir, pigs are stunned for 180 sec with CO<sub>2</sub> (87% CO<sub>2</sub>; Samson C1 L 803; MPS Group, Holbaek, Denmark), weighed and immediately exsanguinated and weighed again. Pigs are scalded (62°C, 3 min) and subsequently carcasses are eviscerated. In the course of evisceration samples are taken. Slaughtering and the isolation of organs is carried out by professional butchers.

## Tissue samples

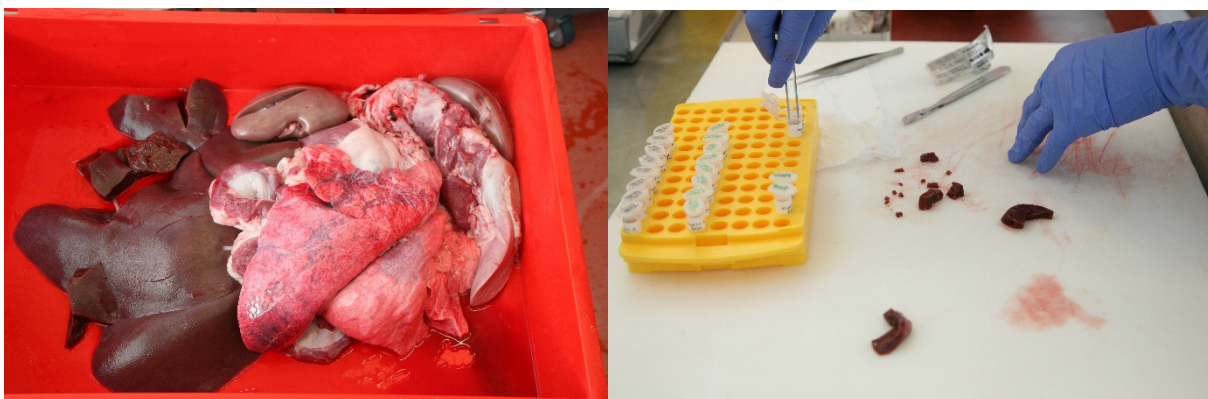
All samples are obtained approximately 20 min *post mortem* by two teams (liver and muscle team and intestine team) and stored in duplicates in RNAlater®. Eppendorf tubes containing samples in RNAlater are stored in the fridge overnight and transferred to -20°C thereafter. Sample preparation is carried out by trained laboratory staff of the Agroscope Animal Biology laboratory.

### Preparation:

- four 2ml-Eppendorf tubes with 1.5 ml RNAlater, labelled with the animal's ID
- two 2ml-Eppendorf tubes with 1.5 ml RLT buffer, labelled with the animal's ID, for randomly selected individuals

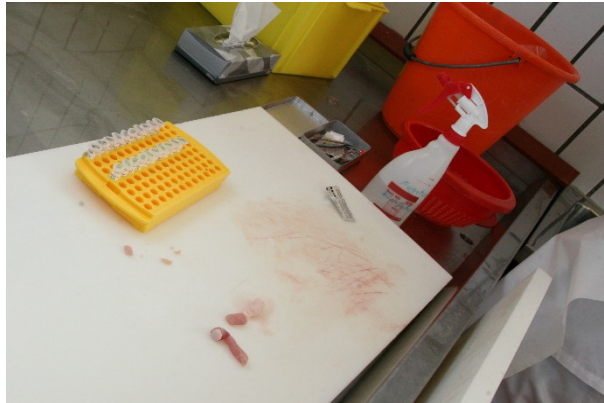
### Liver

1. Place four pieces of liver, cut into cubes of approx. 2 mm side length, into each Eppendorf tube.
2. Ensure that the tissue is well covered with liquid



## Muscle

Same procedure as above for liver; the sample is taken via carottage and immediately processed



## Jejunum

1. Take a piece of jejunum 3m away from the pylorus valve and rinse with PBS buffer (phosphate-buffered saline)
2. Cut a piece of jejunum (approx. 2-3 cm)
3. Scrape the mucosa
4. Place mucosa in Eppendorf tubes filled with RLT buffer (Qiagen)
5. Transfer Eppendorf with jejunum samples in RLT buffer directly to -20°C

