

To reliably confirm diagnosis of FMD in a group of animals, take at least 6 epithelium samples and 20 blood samples, or from all animals present if there are less than 20

Epithelium from a fresh lesion is the best sample

Sampling

- Contact Tilraunastöðin á Keldum before sampling (585-5100).
- If fresh lesions are present, take a fingernail-sized piece of lesion epithelium and put in virus isolation buffer (glycerol and 0.04M PBS, 50/50 mix, pH 7.4).
- Take vesicular fluid if available; this can be transported in plain tubes if submission is rapid but should otherwise be placed in virus isolation buffer.
- Blood samples should be clotted in a plain tube.

Labeling and transport

- Carefully label all the samples and cross reference them to your paperwork so they can be linked both to the animal and premises
- Place the samples in a plastic bag, spray the outside of the bag with disinfectant and put it in another plastic bag together with absorbent material. Spray the outside of the second bag with disinfectant and place it in a third plastic bag. Spray the last bag with disinfectant and put it into the cooling box. Close the box thoroughly. Before leaving the farm, wash the outside of the box and disinfect.
- Fill in the form from Keldur, a request for analyses, with all necessary information and identification of all samples. Put the form in a plastic bag and tape it to the cooling box. If the form is filled in on the farm, a photograph should be taken of it and the paper form left on the farm.
- Label the box with the following address:

Tilraunastöð HÍ að Keldum
Keldnavegi 3
112 Reykjavík

Telephone 585-5100

Samples to take according to the stage of FMD infection

Sample type	Transport	Fresh lesion <3-4 days old	Older lesions >3-4 days old
Epithelium sample	Virus transport medium	Yes	No
Serum (clotted blood)	Plain tube, serum (clotted blood)	Yes	Yes

Note – immune response

- Viral RNA is likely to be present in the serum 1-2 days prior to the appearance of clinical signs, at which point viral antigens can be detected in an epithelium sample. The virus is removed from the blood as antibodies appear, approximately 3-4 days after the start of clinical signs.
- Antibody titre begins to rise from around 4 days after the appearance of clinical signs, and so in animals showing older lesions it may also be appropriate to test for antibodies.

Video: FMD collecting diagnostic samples (EuFMD) <https://www.youtube.com/watch?v=bVwgS5Usvic>