

## SAMPLES FOR FOOT & MOUTH DISEASE (FMD) EXCLUSION BY THE LABORATORY

### IMPORTANT

When sampling a group of animals with suspect FMD signs ensure to take at least:

- **Six (6)** fresh epithelium samples (from 6 different animals) into FMD Virus Transport Medium (FMD VTM)<sup>a</sup>
- **Twenty (20)** blood samples (EDTA + serum) or from all animals if less than 20 in a group

When sampling a single animal with suspect FMD signs ensure to take at least:

- **Fresh epithelium samples in FMD Virus Transport Medium (FMD VTM)<sup>a</sup>**
- **Blood samples (EDTA + serum)**
- **Vesicular swabs or fluid, nasal and oral swabs**

Sample Type	Method	Suggested collection container
Epithelium	Using forceps, collect 2 cm <sup>2</sup> (approximately 5 g of tissue)	Place tissue in a 5 mL tube containing FMD VTM (0.04 M phosphate buffer)
Vesicular fluid	Withdraw fluid with 25 G needle	Eject vesicular fluid into a 5 mL plain sterile tube
Vesicular swab	Swab vigorously ruptured vesicles	Place swab in a 5 mL tube containing FMD VTM (0.04M phosphate buffer)
Saliva	Collect with a syringe (no needle)	Eject saliva into a 5 mL plain sterile tube
Oral and nasal swabs	Swab vigorously the oral cavity (look for lesions) and the nasal cavity or nostrils	Place swab in a 5 mL tube containing FMD VTM (0.04 M phosphate buffer)
Heart muscle, lymph nodes, spleen, kidney, thyroid and adrenal glands	Necropsy	Place individual tissues in a 5 mL tube containing FMD VTM (0.04 M phosphate buffer) Place duplicate samples in formalin for histopathology
Whole blood for serology	Venipuncture (jugular or caudal vein)	Use a plain vacutainer tube (red top)
Whole blood for real-time PCR	Venipuncture (jugular or caudal vein)	EDTA (purple top)
Milk		Place milk in 5 mL plain sterile tube
If old lesions: look for foot lesions	Using forceps, collect 2 cm <sup>2</sup> (approximately 5 g of tissue)	Place tissue in a 5 mL tube containing FMD VTM (0.04 M phosphate buffer)

<sup>a</sup> FMD virus transport medium can be sourced from the Biosecurity Sciences Laboratory (BSL)

#### NOTE:

In highly suspicious cases of FMD, if FMD virus transport medium is not readily available, please use any virus transport medium (VTM) and if that is not available use sterile normal saline.

Keep samples chilled (2°C - 8°C) during transfer to the laboratory. If samples cannot be forwarded within 24 h, unpreserved samples in FMD VTM (e.g. epithelium, vesicular fluid, heart muscle, lymph node, spleen, kidney, thyroid, adrenal glands) can be kept in the freezer and sent later on ice.