

Foot and Mouth Disease Virus 3ABC antibody test

Foot and mouth disease (FMD) is a highly contagious disease, caused by a virus of the genus Aphtovirus affecting cloven-hoofed animals. FMD is widely distributed throughout the world and has the potential of causing extensive economic losses. There are seven different serotypes of FMD virus, with many more subtypes. The virus is very easily spread, by contact with an infected animal, contaminated animal parts or objects. The virus may also spread airborne over substantial distances. Vaccination with conventional vaccines protects the animal from developing symptoms of the disease, but does not prevent infection. Animals may become persistently infected, referred to as carriers, and considered to be a potential source of virus for future outbreaks. The detection of antibody to the non-structural protein (NSP) has been used to identify past or present infection with any of the seven serotypes of the virus and has shown to be a sensitive and specific method to differentiate between infected and vaccinated animals. Among the different non-structural proteins (NSP), 3ABC provides the most reliable antibody response.

The SVANOVIR® FMDV 3ABC-Ab ELISA is designed to detect antibodies to the non-structural protein 3ABC in bovine serum samples and to differentiate between naturally infected and vaccinated animals. It detects all serotypes of the FMD virus. It also detects animals being in the carrier status. If a vaccinated animal scores positive it means it is a carrier. The test is developed in collaboration with Centro Virologia Animal (CEVAN).

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Kit format: 10-plate package sizes

No of tests: 480

No of samples: 440 (wells for kit controls excluded)

Application Area: Diagnostics as well as control and eradication program

Screening/Confirmation

Detecting infected animals in vaccinated herds (carriers)

Characteristics: Indirect ELISA

Differentiation between naturally infected and vaccinated cattle

Identifies persistently infected carriers

Rapid (less than 2 hours)

Sensitivity in naturally infected populations 97%

Specificity in FMDV-free areas 99-100% Sensitivity in vaccinated populations 94-100%

Agreement SVANOVIR® vs CEVAN in-house ELISA 96,8%