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**Diagnostic techniques for bovine and caprine parainfluenza
virus type 3**

牛羊副流感病毒3型诊断技术

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Animal Health Standardization (SAC/TC 181).

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Introduction

Bovine parainfluenza virus type 3 (BPIV3) and caprine parainfluenza virus type 3 (Caprine parainfluenza virus type 3 (CPIV3) belongs to the Paramyxoviridae subfamily of the Paramyxoviridae family.

ovirinae) respiratory virus genus (Respirovirus), the nucleotide homology between the two is close to 81%, and there is a cross reaction in serology.

In 2001, the International Committee on Taxonomy of Viruses (ICTV) classified BPIV3 and CPIV3 were renamed as Bovine Respirovirus 3 and Caprine Respirovirus 3.

Respirovirus 3), considering the continuity of relevant standards in China, and for the convenience of users to query and apply, this document still uses the original virus naming name.

BPIV3 mainly infects cattle, but may also infect deer, pigs, sheep, etc.; CPIV3 mainly infects goats and sheep.

The main clinical symptoms are fever, cough, and runny nose, and laboratory diagnosis is required for confirmation.

Clinical diagnosis of infection, pathogen detection (virus isolation and identification, RT-PCR, Real-time RT-PCR), serological detection (cELISA and virus neutralization test). When conducting pathogen detection on cattle samples, it is recommended to use RT-PCR or Real-time RT-PCR method is recommended for detecting BPIV3; when conducting etiological testing on sheep samples, RT-PCR or Real-time RT-PCR is recommended.

The method can detect both CPIV3 and BPIV3. The two viruses have cross-reactivity in serology, so the serological method in this document can detect both Detect antibodies to CPIV3 and BPIV3 infection.

Diagnostic technology of parainfluenza virus type 3 in cattle and sheep

1 Scope

This document describes the clinical diagnosis, virus isolation and characterization, Diagnosis by RT-PCR, real-time fluorescence RT-PCR, competitive ELISA and virus neutralization assay method.

This document applies to the diagnosis and detection of bovine parainfluenza virus type 3 infection and goat parainfluenza virus type 3 infection.

2 Normative references

NY/T 541

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Abbreviations

The following abbreviations apply to this document.

BPIV3. Bovine parainfluenza virus type 3 cELISA. Competitive enzyme-linked immunosorbent assay CPE. Cytopathic effect CPIV3. Caprine parainfluenza virus type 3 Ct value. Cycle threshold DEPC. Diethyl oxydiformalate ELISA. Enzyme-linked immunosorbent assay FBS. Fetal bovine serum FITC. Fluorescein isothiocyanate HAT. Selection medium (Hypoxanthine, Aminopterin, Thymidine) HRP. Horseradish peroxidase MDBK cells. Madin darby bovine kidney cells MEM. Minimum essential medium MOI. Multiplicity of infection OD value. optical density PBS. Phosphate buffered saline PBST. Phosphate buffered saline with tween 20 PIV3. Parainfluenza virus type 3