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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 5196-2020

**Technical specification for quarantine of porcine rotavirus
infection**

猪轮状病毒感染检疫技术规范

(English Translation)

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Foreword

This document is drafted in accordance with GB/T 1.1-2020.

This document was proposed and managed by the General Administration of Customs of the People's Republic of China.

Drafting organizations of this document. Fuzhou Customs of the People's Republic of China, Nanjing Customs of the People's Republic of China, Nanning of the People's Republic of China Customs, Shenzhen Customs of the People's Republic of China, Haikou Customs of the People's Republic of China, Xiamen Rui Deli Calibration and Testing Technology Co., Ltd.

1 Scope

This document specifies the enzyme-linked immunosorbent assay for porcine rotavirus infection, reverse transcription-polymerase chain reaction and real-time fluorescent reverse transcription-Polymerase chain reaction detection technology.

This document is suitable for antibody detection and pathogenic nucleic acid identification of porcine rotavirus infection.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations Only the version corresponding to that date is applicable to this document; for undated references,

the latest version (including all amendments) is applicable Used in this document.

GB/T 6682 Analytical laboratory water specifications and test methods GB/T 18088 Entry and Exit Animal Quarantine Sampling GB 19489 Laboratory Biosafety General Requirements

3 Terms, definitions and abbreviations

There are no terms and definitions that need to be defined in this document. The following acronyms apply to this document.

4 Apparatus and equipment

4.1

Class II biological safety cabinet.

4.2

Autoclave.

4.3 96-well microtiter plate.

4.4

Constant temperature incubator.

4.5

Plate washer.

4.6

Microplate reader.

4.7

Refrigerated centrifuge.

4.8

Single-channel adjustable micropipette (2 μL ~20 μL , 20 μL ~200 μL , 100 μL ~1000 μL).

4.9

Multi-channel adjustable micropipette (10 μL ~100 μL).

4.10

Thermal cycler.

4.11

Horizontal electrophoresis apparatus.

4.12

Gel imager.

4.13

Fluorescence PCR machine.

4.14

Refrigerator (2 °C~8 °C and -20 °C).

5 Reagents and materials

5.1

Water. Comply with the first grade water specification in GB/T 6682.

5.2

Porcine rotavirus VP6 protein.

5.3

Standard positive serum. preparation of piglet immunized with porcine rotavirus vaccine, and it is positive by virus neutralization test.

5.4

Standard Negative Serum. The serum of piglets without maternal antibodies and not immunized with porcine rotavirus vaccine is negative by the virus neutralization test.

5.5

Sterilized normal saline. See A.1 in Appendix A for the preparation.

5.6

Coating liquid. For preparation, see Appendix A, A.2.

5.7

Phosphate buffered saline (PBS). For preparation, refer to Appendix A, A.3.

5.8

Washing solution. See A.4 in Appendix A for the preparation.

5.9

Sealing solution. See A.5 in Appendix A for the preparation.

5.10

Sample diluent. For preparation, see Appendix A in A.6.

5.11

Anti-pig PRV enzyme-labeled antibody.

5.12

Substrate color developing solution. For preparation, see Appendix A in A.7.

5.13

Stop solution. See A.8 in Appendix A for the preparation.

5.14

Diethyl pyrocarbonate treated water (DEPC water). See Appendix A in A.9 for the preparation.

5.15

Trizol.

5.16

Trichloromethane.

5.17

Isopropanol.

5.18

Absolute ethanol.

5.19

Reverse transcription kit.

5.20

Taq DNA polymerase.

5.21

dNTPs (including dCTP, dGTP, dATP, dTTP).

5.22 10xPCR buffer.

5.23

Agarose.

5.24

Molecular weight standard (100 bp ~ 600 bp).

5.25

TBE electrophoresis buffer, see Appendix A in A.10 for the preparation.