

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

SN/T 1166.2-2002

**Protocol of micro-serum neutralization test for vesicular
stomatitis**

水泡性口炎微量血清中和试验操作规程

(English Translation)

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Foreword

Vesicular Stomatitis (VS) serum neutralization test is in reference to the International Organization for Animal Diseases (OIE) "Mammals, Avian and Based on the bee A and B disease diagnostic test and vaccine standard manual and practical experience.

Appendix A of this standard is an informative annex.

This standard is proposed and managed by the National Certification and Accreditation Administration.

This standard was drafted. Yunnan Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China.

1 Scope

This standard specifies the neutralization test method for vesicular stomatitis virus.

This standard applies to animal vesicular stomatitis virus antibodies and stereotypical detection.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 6682-1992 Analytical laboratory water specifications and test methods (eqv ISO 3696:1987)

3 Abbreviations

The following abbreviations apply to this standard.

3.1

CPE. cytopathic effect.

3.2

TCID₅₀. Half of the tissue culture infection volume.

3.3

VSV. vesicular stomatitis virus.

3.4

VSV-NJ. vesicular stomatitis virus New Jersey type; VSV-IND vesicular stomatitis virus Indiana type.

4 Principle

When a specific serum neutralizing antibody binds to a virus, it can inhibit the adsorption of the virus on sensitive cells, thereby losing the ability to infect, thereby Prevent the replication of the virus in the cell. This reaction is not only manifested as a virus that can only be neutralized by the corresponding immune serum, but also in order to neutralize a certain amount of virus (infectivity), there must be a certain titer of immune serum. The neutralization test is based on the determination of the infectivity of the virus.

The virus-susceptible cells should be selected as the material, and the titer of the neutralizing antibody should be compared to compare the residual infectivity of the virus after neutralizing the immune serum.

according to. Animals can produce specific antibodies 4 to 5 days after infection with vesicular stomatitis virus. Neutralizing antibodies have a high degree of specificity, Therefore, the type identification can be performed by the neutralization test.

5 Reagents and materials

5.1

Virus. VSV-NJ and VSV-IND international standard strain, provided by the designated unit.

5.2

Serum. VSV two types of standard positive serum, negative serum, provided by the designated unit.

5.3

Tested serum. Bovine and pig serum were inactivated at 60 ° C for 30 min. Horse serum was inactivated at 65 ° C for 30 min.

5.4

Cells. BHK21 or Vero cell lines.

5.5

Culture medium. E-MEM cell growth solution, see Appendix A.

5.6

Maintenance and Diluent. E-MEM Cell Maintenance, see Appendix A.

5.7

Cell dispersion. See Appendix A.

5.8

Water. It meets the secondary water specification of the analytical laboratory of GB/T 6682-1992.

6 Instruments and equipment

Analytical balance, autoclave, dry oven, ultrasonic pulverizer, inverted microscope, micro-oscillator, carbon dioxide incubator, refrigerator (Preserved serum at -20 ° C, preserved at -70 ° C). 96-well tissue culture plate, single-channel, multi-channel micropipette (20μL ~.200μL).