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

GB 4789.27-1994

Replacing GB/T 4789.27-2003

**Microbiological examination of food hygiene -- Examination of
residue of antibiotics in fresh milk**
(English Translation)

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Foreword

This revised standard adopts the International Institute analyst (AOAC) AOAC982.18 "liquid milk products in beta- amine antibiotic milk qualitative the color reaction test "(AOACOfficialMethod982.18.

Beta-lactamantibioticsinfluidmilkproducts-Qualitativecolorreactiontests) as the second method.

The main difference compared to the Standard and AOAC982.18 as follows.

--- Modification kits nutrition tablets plus method, directly to the media containing the test strains of Bacillus preparation in a small test tube;

--- The "Note. Occasionally there are special kits batches may require a longer incubation time to complete if every color 10min check color display, and to record the most appropriate incubation time for each batch are required. (Note.

OccasionallykitsofaparticularLotNo. mayrequirealongerincubationtimeforcolorto fullydevelop. IfCheckcolordevelopmentat10minintervalsandrecordoptimumincu-bationtimerequiredforeac hLotNo.) "Program was changed to" If the color does not change, shall be re-cultured in a water bath 30min for final observation ";

--- Remove penicillin confirmation procedures.

This standard replaces GB/T 4789.27-2003 "Microbiological examination of food hygiene in antibiotic residues in milk." this standard compared with GB/T 4789.27-2003 The main changes are as follows.

--- Standard name was changed to "Microbiological examination of food hygiene in antibiotic residues in milk testing";

--- Adds a second method, the original standard thermophilic lactic streptococci method determined as the first method;

--- Added Appendix A "media and reagents." Appendix A of this standard is a normative

appendix.

This standard is proposed and administered by the People's Republic of China Ministry of Health.

This standard by the People's Republic of China Ministry of Health is responsible for interpretation.

1 Scope

This standard specifies the test methods of antibiotic residues in milk.

The first method Streptococcus thermophilus inhibition Principle 2 Samples after 80 °C sterilization, add Streptococcus thermophilus bacteria. After the incubation period, Streptococcus thermophilus began to proliferate. This time add the metabolic substrates 2,3,5-triphenyltetrazolium chloride (TTC), if the sample does not contain antibiotics or antibiotic concentration was below the detection limit, addicted Streptococcus thermophilus will continue to proliferate, reducing TTC become red substance. Conversely, if the sample contains higher than the detection limit of antibacterial agents, the thermophilic Streptococcus is suppressed, the indicator TTC does not restore, maintain color.

3 Equipment and materials

In addition to the microbiological laboratory conventional sterilization and cultivation equipment, other equipment and materials as follows.

3.1

Refrigerator. 2 °C ~ 5 °C, -20 °C ~ -5 °C.

3.2

incubator. 36 °C ± 1 °C.

3.3

lid temperature water bath. 36 °C ± 1 °C, 80 °C ± 2 °C.

3.4

Balance. a sense of the amount of 0.1g, 0.001g.

3.5

sterile pipette. 1mL (with 0.01mL scale), 10.0mL (with 0.1mL scale) or micro pipettes and tips.

3.6

sterile tube. 18mm x 180mm.

3.7

Thermometer. 0 °C ~ 100 °C.

3.8

Vortex Mixer.

4 Strains, media and reagents

4.1

bacteria. *Streptococcus thermophilus*.

4.2

sterilized skim milk. see Section A. Chapter 1.

4.3 4% 2,3,5-triphenyltetrazolium chloride (TTC) solution. See Section A. 2.

4.4

penicillin G reference solution. See Section A. 3.

5 Test procedure

Antibiotic residues in milk testing procedures shown in Figure 1.