



**National Standard of The
People's Republic of China**

GB 4789.4-2024

**National Food Safety Standard – Food Microbiological
Examination – Examination of Salmonella**

食品安全国家标准 食品微生物学检验 沙门氏菌检验

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Foreword

This Standard replaced GB 4789.4-2016 *National Food Safety Standard - Microbiological Examination of Food – Examination of Salmonella*.

Compared with GB 4789.4-2016, the major changes of this Standard are as follows:

- Modify equipment and materials, media and reagents;
- Modified the inspection programs and operation procedures;
- Modify Appendixes A and B

National Food Safety Standard – Food Microbiological Examination – Examination of Salmonella

1 Scope

This Standard specifies the test methods for *Salmonella* in food. This Standard applies to the detection of *Salmonella* in food.

2 Equipment and Materials

In addition to the routine sterilization and culture equipment of the microbiology laboratory, other equipment and materials are as follows.

2.1 Refrigerator: 2°C~8°C.

2.2 Constant temperature incubator: 36°C ± 1°C, constant temperature device: 42°C ± 1°C, 48°C ± 2°C.

2.3 Homogenizer.

2.4 Oscillators.

2.5 Balance: with sensitivity of 0.1g.

2.6 Sterile Erlenmeyer flask: with capacity of 500mL, 250mL.

2.7 Sterile graduated cylinder: with capacity of 50mL.

2.8 Sterile homogenization cups and sterile homogenization bags.

2.9 Sterile wide-mouth bottle: with capacity of 500mL.

2.10 Sterile pipette: 1mL (with scale of 0.01mL), 10mL (with scale of 0.1mL) or micropipette and tip.

2.11 Sterile petri dishes: with diameter of 60mm, 90mm.

2.12 Sterile test tube: 10mm×75mm, 15mm×150mm, 18mm×180mm or other suitable specifications.

2.13 Sterile glass tube: 3mm×50mm.

2.14 Sterile inoculation loop: 10μL (diameter about 3mm), 1μL and inoculation needle.

2.15 pH meter or precision pH test paper.

2.16 Microbial biochemical identification system.

2.17 Biological safety cabinet.

3 Culture Media and Reagents

3.1 Buffered peptone water (BPW): see A.1.

3.2 Sodium Tetrasulfonate Brilliant Green Bacteria Enrichment Solution (TTB): see A.2.

3.3 Magnesium chloride malachite green soy peptone (RVS) enrichment solution: see A.3.

3.4 Bismuth sulfite (BS) agar: see A.4.

3.5 HE agar: see A.5.

3.6 Xylose lysine deoxycholate (XLD) agar: see A.6.

3.7 Triple sugar iron (TSI) agar: see A.7.

3.8 Nutrient agar (NA): see A.8.

3.9 Semi-solid agar: see A.9.

3.10 Peptone water, indigo matrix reagent: see A.10.

3.11 Urea agar (pH 7.2): see A.11.

3.12 Potassium cyanide (KCN) medium: see A.12.

3.13 Lysine decarboxylase test medium: see A.13.

3.14 Sugar fermentation medium: see A.14.

3.15 o-Nitrophenol β-D galactopyranoside (ONPG) medium: see A.15.

3.16 Sodium malonate medium: see A.16.

3.17 Salmonella chromogenic medium.

3.18 Salmonella diagnostic serum.