Laboratory Guidebook
Notice of Change

Chapter new, revised, or archived: MLG 4 Appendix 2.05

Title: Flow Chart Specific for FSIS Laboratory Isolation and Identification of Salmonella

Effective Date: 02/24/20

Description and purpose of change(s):

This flow chart describes FSIS laboratory testing included in MLG 4 Isolation and Identification of Salmonella from Meat, Poultry, Pasteurized Egg, and Siluriformes (Fish) Products and Carcass and Environmental Sponges
Flow Chart Specific for FSIS Laboratory Isolation and Identification of *Salmonella*

**PRIMARY ENRICHMENT**

- Various Samples + Enrichment
  - Incubate BPW1 @ 35°C for 18-24 hrs (RTE), 20-24 hrs (raw poultry) or 22-26 hrs (fish).
  - Incubate mTSB5 @ 42°C for 15-24 hrs (raw meat).

**NOTE:** Sample receipt temperature of ≤15°C is required for raw beef products.

**SECONDARY (SELECTIVE) ENRICHMENT**

- Perform 3MTM Molecular Detection Assay 2 - *Salmonella* 2

**DIFFERENTIAL & SELECTIVE ISOLATION MEDIA**

- Sugar Fermentation & H₂S/Gas Production

**EXAMINATION FOR TYPICAL REACTIONS**

- Presumptive Positive Reported Except for HACCP

**PURITY/GROWTH**

**BIOCHEMICAL IDENTIFICATION**

- Examine SBA growth for purity
  - Prepare saline suspension

- Test on VITEK® 2

**CONFIRMED POSITIVE ISOLATE**

- FSIS Labs: Pick isolates to nutrient agar deep for further characterization testing and storage at EL-MCB11. Serotype will be inferred from WGS data.

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1. BPW = Buffered Peptone Water
2. 3MTM Molecular Detection Assay = Rapid Screen Test
3. TT = TT broth (Hajna)
4. RV = Rappaport-Vassiliadis R10 Broth
5. BGS = Brilliant Green Sulfa Agar
6. DMLIA = Double Modified Lysine Iron Agar
7. TSI = Triple Sugar Iron Agar
8. LIA = Lysine Iron Agar
9. SBA = Sheep Blood Agar
10. VITEK® 2 = VITEK® 2 Compact System Automated Biochemical Identification System
11. Eastern Laboratory Microbiology Characterization Branch (EL-MCB), USDA, FSIS
12. Modified Tryptone Soya Broth

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