Salmonella is one of the most common causes of food-borne illness, with about 1.4 million cases of Salmonellosis occurring annually in the United States. Various serotypes have been associated with meat, poultry, eggs, milk, fish, sauces, cream-filled desserts, peanut butter, chocolate and other foods. With an increase in antibiotic resistance and an upward prevalence trend in broilers, food processors need fast and accurate testing methods. Traditional isolation from culture requires many steps and more than four days to get results.

**Benefits**

- Speed – Next-day results
- Accuracy – Automated DNA-based analysis instead of subjective plate counts
- Exceptional sensitivity – Reliably detects $10^4$ cfu/mL in enriched samples
- Ease of use – Tableted reagents reduce operator error
- Closed-cap system avoids amplicon contamination in the lab
- LIMS-compatible electronic data for easy storage, sharing and retrieval
- Designed for efficient workflow and reliable results

**Features**

- Results in 3.5 hours processing
- Validated on a wide variety of foods, including meat, poultry, fish and seafood, fruit and vegetable products, dairy products, chocolate/bakery products, animal feeds and pasta
- Specificity ≥ 98%
- Excellent inclusivity/exclusivity

**Approvals/Certifications**

- Adopted by USDA-FSIS for screening raw and ready-to-eat meat and poultry, carcass sponges, whole bird rinses and pasteurized egg products
- Recommended by USDA-NPIP for poultry environmentals, cloacal swabs, chick box papers and meconium samples
- Approved by AFNOR, Brazil MAPA, Health Canada, Danish Veterinary and Food Administration and Swedish National Food Administration (see web site for details)
- Certified by AOAC International as Official Method #2003.09
- Certified by AOAC Research Institute as Performance Tested Methods™ #100201

This test kit’s performance was reviewed by AOAC Research Institute and was found to perform to the manufacturer’s specifications.
Sample preparation

Prepare 1:10 dilutions of sample according to the food type and incubate overnight at 35 ±1°C.

For samples requiring regrowth, transfer 10 µL of enriched sample to 500 µL of BHI and incubate at 35 ±1°C for 3 hours. Regrowth is not required for meat and poultry.

Step-by-step directions are detailed in the BAX® System User Guide, included with purchase.

BAX® system protocol

8:00 Create rack file and warm up cycler.

8:05 Mix protease with lysis buffer and transfer 200 µL of lysis reagent to cluster tubes.

8:10 Transfer 5-µL samples to cluster tubes.

8:20 Heat cluster tubes for 20 minutes at 37°C, then 10 minutes at 95°C.

8:50 Cool cluster tubes for 5 minutes in cooling block, then transfer 50 µL to PCR tubes in cooling block.

9:00 Place sealed PCR tubes in cycler and run program.

12:30 Review results.