

InTray™ Colorex™ Salmonella

For the detection of *Salmonella* species primarily used with clinical stool or blood samples

PRODUCT BIO

BioMed Diagnostics' InTray™ Colorex™ *Salmonella* test serves as a microbiology sample collection, transport, and culture device. This device allows for simultaneous growth, observation, and chromogenic differentiation of the *Salmonella* genus of bacteria, *S. typhi*, *S. paratyphi*. This test is 89% specific allowing the rare, real positives, often overlooked in routine testing, to be targeted and reduces excess testing on false positives. **BioMed's patented InTray™ system saves time and money, while reducing exposure to collected samples by combining several procedures into a single device.**



The patented InTray™ system consists of a re-closable outer seal containing an optically clear, anti-fog window, which creates an airtight 2" diameter chamber with a large enough area to streak for isolation. The innovative design of the InTray™ high-performance viewing window makes it possible to place the device directly under a microscope removing the need to prepare slides and prevents unnecessary exposure of the sample after inoculation. **BioMed's InTray™ system negates the need for multiple procedures increasing throughput and decreasing the cost of laboratory materials and medical waste.**

Additionally, the InTray™ design lends itself to high performance not only in laboratory and controlled

point-of-care settings, but also off-site locations or austere environments. The InTray™ Colorex™ *Salmonella* test is a fully enclosed system and does not require any reagents or complicated procedures to inoculate or obtain results. The InTray™ system is also equipped with a small air filter creating a controlled air exchange, which maintains the integrity of the growth environment inside the device. **The InTray™ system is ideal for use in the field and in austere environments due to its low reliance on laboratory equipment.**

The InTray™ Colorex™ *Salmonella* makes preliminary detection easy by producing distinctive color and morphology differences between the growth of *Salmonella* species and other organisms within as little as 18-24 hours. In addition, the InTray™ Colorex™ *Salmonella* inhibits the growth of yeasts, mold, fungi, and other bacteria increasing specificity resulting in 100% sensitivity and 89% specificity for *Salmonella* compared to 78% specificity with Hektoen Agar. **The specially formulated chromogenic media makes detection and preliminary visual identification easy, while inhibiting potential interference in obtaining accurate results.**

Visual Results:

- *Salmonella* species -Mauve
- Other bacteria or coliforms – Blue, colorless, or inhibited

QUALITY CONTROL

The InTray™ Colorex™ *Salmonella* is tested with ATCC™ strains of the indicated species. At the time of manufacture, quality control tests are performed on each lot of InTray™ Colorex™ *Salmonella* to ensure viability, doubling time, and sterility. These tests are repeated throughout the product shelf life by BioMed Diagnostics confirming the ability to support growth of selected species while maintaining specificity.

VALUE

High Throughput – Once the device is inoculated no other culture preparation is required saving time

Cost Savings – Reduces laboratory materials and medical waste

High specificity – 100% sensitive and 89% specific for the growth *Salmonella* species

BENEFITS

Convenient - Combines collection, culture, and observation into one device

Easy to use - Minimal lab procedures and equipment needed

Easy to store - 6 month shelf life under refrigeration (2-8 °C)

Easy observation - No fogging or condensation on the InTray™ viewing window

Safe - Fully enclosed InTray™ system prevents contamination and reduces exposure to collected samples

PRODUCT SPECIFICS

Storage - Refrigeration (2-8 °C)

Shelf Life - 6 months

Incubation - 18 - 24 hours at 37 °C

Quantity Sold -
5 Pack (10-7707)
20 Pack (10-7701)

CORPORATE OVERVIEW

BioMed Diagnostics, Inc., a boutique biotech firm and an industry leader since 1989, develops and manufactures in vitro diagnostic devices. BioMed's point-of-care ready tests provide accurate diagnostic tools for scientists worldwide to aid in the identification of bacteria, parasites and fungi. The company formed as the result of a mercy mission conducted by a group of physicians to Central America; there they discovered the need for robust diagnostic tools for use in austere environments. Their experience unleashed the inspiration for BioMed's innovative products that support medical professionals, veterinarians, research teams, and environmental and industry scientists globally.

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InTray™ Colorex™ Salmonella

BACKGROUND

Salmonella is a foodborne pathogen and infections caused by this species, including *S. typhi*, remain a major worldwide health problem. According to the CDC, in 2008 *Salmonella* had an incidence rate of 40,000 new cases a year within the US. In Europe, it is reported as the primary cause of collective "toxi-infections" and in a 2007 European Food Safety Authority report it was found that in developing countries *S. typhi* and *S. paratyphi* have an estimated annual incidence of about 17 million cases. According to the recent WHO report, *Salmonella* infections are responsible for 2 million deaths per year from diarrhea.

Most commonly present in meat, eggs, and dairy products, *Salmonella* species are also found in water, with the serotypes *S. typhi* and *S. paratyphi* being responsible for typhoid and paratyphoid fever. *Salmonella* surveillance represents the most common analysis in food chain processes. Consequently, improving the efficiency of testing will lead not only to a reduction in the number of contaminated foodstuffs needing to be recalled on the market, but also to substantial economic savings in costs related to microbial quality control.

DIRECTIONS

Prior to inoculation, the InTray™ Colorex™ *Salmonella* should be brought to room temperature.

To inoculate the InTray™ Colorex™ *Salmonella*, pull back the lower right corner of the label adjacent to the clear window until the protective seal is completely visible. Remove the seal by pulling the tab, discard the seal but **do not remove the white filter strip over the vent hole.** Obtain a small amount of specimen and place on top of the 2" medium well. The 2" diameter well offers a large enough surface area to streak for isolation.

To culture the sample, reseal the InTray™ by returning the clear label to its original position so

the optically clear, anti-fog window covers the medium. Press the edges of the label against the plastic tray to ensure an airtight seal. Once inoculated, the InTray™ Colorex™ *Salmonella* can be incubated at 37°C and visual results can occur within as little as 18 - 24 hours.

DETECTION

InTray™ Colorex™ *Salmonella* medium is formulated to produce distinctive colony growth with typical identifying characteristics both macro and microscopically. For examination using a microscope, simply place the InTray™ Colorex™ *Salmonella* on the microscope stage and observe.

REFERENCES

1. *Food related illness and death in the United States.* Mead PS, Slutsker L, Dietz V, McCraig LF, Bresee JS, Shapiro C, Griffin PM, Tauxe RV (1999) Emerging Infectious Diseases, 5:607-625
2. *Drug Resistant Salmonella Fact Sheet N°139.* World Health Organization.
3. *Comparison of CHROMagar Salmonella medium and Hektoen Enteric Agar for isolation of Salmonellae from stool samples.* Gaillot O. et al. 1999. Journal of Clinical Microbiology, 37 : 762-765