

VALUE

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

Cost Savings – Reduces laboratory materials and medical waste

High specificity – Most organisms other than

BENEFITS

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

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

Easy to use – Minimal lab procedures and equipment needed

Easy to store – 12 month shelf life under refrigeration (2-8 °C)

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

PRODUCT SPECIFICS

Storage – Refrigeration recommended (2-8 °C)

Shelf Life – 12 months

Incubation – 18–24 hours at 35°C

Quantity Sold

20 Pack (55-1001)
5 Pack (55-1000)

InTray™ XLT4

For the isolation of non-typhi *Salmonella* species from samples contaminated with fecal matter; commonly used with environmental drag swabs or clinical stool samples

PRODUCT BIO

BioMed Diagnostics' InTray™ XLT4 is a microbiology sample collection, transport, and culture device for the simultaneous growth and observation of non-Typhi *Salmonella*. **BioMed's patented InTray™ system saves time and money while reducing exposure to collected samples by combining several procedures into a single device.**



The InTray™ system consists of a re-closable outer seal containing an optically clear, anti-fog window, which creates an airtight 2" diameter chamber providing 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 in laboratory and controlled point-of-care settings as well as off-site locations or austere environments. The InTray™ XLT4 is a fully enclosed system and does not require any reagents or complicated procedures to inoculate or obtain presumptive 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™ XLT4 makes preliminary detection easy by producing distinctive color differences between the growth of non-Typhi *Salmonella* species and other organisms within as little as 18-24 hours. In addition, the growth of yeasts, mold, fungi, and other bacteria are inhibited increasing specificity.

Visual Results:

- Non-Typhi (H₂S-Positive) *Salmonella* species – Black or black centered with yellow periphery
- H₂S-Negative *Salmonella* species – Pinkish yellow
- *Citrobacter* species – Yellow with no evidence of blackening
- Other organisms – Marked to complete inhibition

QUALITY CONTROL

The InTray™ XLT4 is tested with ATCC™ strains of the indicated species. At the time of manufacture, quality control tests are performed on each lot of InTray™ XLT4 to ensure viability 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.

BACKGROUND

Clinical

Salmonella is a foodborne pathogen and infections caused by this species remain a major worldwide health problem. According to the CDC, in 2008 *Salmonella* infections 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." According to a recent WHO report, *Salmonella* infections are responsible for 2 million deaths per year from diarrhea.

It is especially important to identify non-Typhi *Salmonella* species in clinical specimens, as treatment is generally separate from other *Salmonella* species. Furthermore, traditional antibiotic treatments can increase the risk of relapse in cases of non-Typhi *Salmonella*, according to the Ontario Agency for Health Protection and

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™ XLT4

Promotion. **XLT4 agar has shown sensitivity comparable to Hektoen enteric ager and nearly 100% specificity when used to isolate non-Typhi *Salmonella* from stool samples.**

Food Quality Management

Most frequently present in meat, eggs, and dairy products, *Salmonella* species are also found in water. *Salmonella* surveillance represents the most common analysis in the food production processes. The InTray™ XLT4 improves the efficiency of testing by inhibiting other contaminating fecal bacteria such as *Proteus*, *Providencia* and *Pseudomonas*, which can lead to overgrowth on other media. **XLT4 agar has shown improved growth of non-Typhi *Salmonella* species from specimens collected using environmental drag swabs.**

DIRECTIONS

Prior to inoculation, the InTray™ XLT4 should be brought to room temperature.

To inoculate the InTray™ XLT4, 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 agar. 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.

Best practice suggests pre-enrichment using a *Salmonella* enrichment broth with incubation at 35°C for 18-24 hours followed by incubation at 35°C for 18-24 hours on XLT4 agar. **Consult appropriate references for ultimate sample collection, incubation and confirmation procedure.**

DETECTION

InTray™ XLT4 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™ XLT4 on the microscope stage and observe through the clear-view window.

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.* World Health Organization. Fact Sheet N 139. Revised 2005
3. *Nontyphoidal Salmonella (NTS) Infection: Information for Clinicians.* Ontario Agency for Health Protection and Promotion. August 14, 2010.
4. *Evaluation of five new plating media for the isolation of Salmonella species.* Dusch, H., and M. Altwegg. *J. Clinical Microbiology*. 33: 802-804.1995