

InTray™ Colorex™ Vibrio

For the isolation and detection of the *Vibrio* species *V. parahaemolyticus*, *V. alginolyticus*, *V. vulnificus*, and *V. cholerae* often used for water and food quality testing.

PRODUCT BIO

BioMed Diagnostics' InTray™ Colorex™ Vibrio test serves as a microbiology sample collection, transport, and culture device that allows for simultaneous growth, observation, and chromogenic differentiation of the *Vibrio* species known to be responsible for food and water borne illnesses. **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. The seal 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. This removes the need to prepare slides and prevents unnecessary exposure of the sample after inoculation. **By combining both growth and observation into one fully enclosed device, 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™ Vibrio test is a fully enclosed system and does not require any reagents or complicated procedures to inoculate or obtain results. This system is also equipped with a small air filter creating a controlled air exchange. **The InTray™ system is ideal for use in the field and in austere environments due to its low reliance on reagents and laboratory equipment.**

The InTray™ Colorex™ Vibrio makes preliminary detection easy by producing distinctive color and morphology differences between the growth of *Vibrio* species within as little as 18-24 hours. The InTray™ Colorex™ Vibrio inhibits the growth of mold, fungi and other bacteria, including *E. coli*, increasing specificity. **The specially formulated chromogenic media makes preliminary visual identification easy while inhibiting potential interference in obtaining accurate results.**

Visual Results:

- *V. cholerae* and *V. vulnificus* – Green Blue to Turquoise Blue
- *V. parahaemolyticus* - Mauve
- *V. alginolyticus* - Coloreless

QUALITY CONTROL

The InTray™ Colorex™ Vibrio 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™ Vibrio to ensure viability and sterility. These tests are repeated throughout the product shelf life by BioMed Diagnostics confirming the products ability to support growth of selected species while maintaining specificity.

BACKGROUND

The *Vibrio* genus contains over 20 species, which are naturally present on marine plants and animals. Of the many species, four represent a public health

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 – Selective for the growth of selected *Vibrio* 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 (10-7907)
20 Pack (10-7901)

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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hazard. The Center for Disease Control reported an estimated 115% increase the annual infection rate of *Vibrio* infections in the US from the period between 1996 and 1998 when compared to 2010. *Vibrio* infections are also commonly reported in areas of Asia and Oceania linked to the high consumption of seafood

V. cholerae serogroups O1 and O139 often cause cholera through water and food contamination. Emerging cyclically, cholera is considered to be endemic in many countries and is a virulent disease causing severe diarrhea, dehydration and even death. The number of cholera cases reported to the WHO in 2006 rose dramatically from the years prior with a reported 240,000 cases from 52 countries resulting in about 6,300 deaths.

V. parahaemolyticus and ***V. vulnificus*** are largely involved in foodborne diseases from seafood causing septicaemia, wound infections, and gastroenteritis. Although *V. parahaemolyticus* is the most commonly reported species causing infection, *V. vulnificus* increasing prevalence is associated with a 2.24% case fatality rate according to 2009 WHO statistics reported by 45 countries.

V. alginolyticus, less common, poses a major pathogen issue for oyster producers since it can lead to major production losses. If detected, contamination of other oyster production sites can be prevented.

DIRECTIONS

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

To inoculate the InTray™ Colorex™ Vibrio, 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" diameter 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 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™ Vibrio should be incubated at 37°C and visual results can occur within as little as 18 - 24 hours.

DETECTION

InTray™ Colorex™ Vibrio 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™ Vibrio on the microscope stage and observe.

REFERENCES

1. Center for Disease Control. *Vital Signs: Incidence and Trends of Infection with Pathogens Transmitted Commonly Through Food --- Foodborne Diseases Active Surveillance Network, 10 U.S. Sites, 1996–2010*.
2. JS Abrams, et al. Background Paper on *The Integration of Oral Cholera Vaccines into Global Cholera Control Programmes*. Presented at World Health Organization SAGE in October 2009.
3. Kenneth Todar. *The Good, the Bad, and the Deadly*. SCIENCE Vol 304: p. 1421.
4. N. Banatvala, W. G. Hlady, B. J. Ray, L. M. McFarland, S. Thompson and R. V. Tauxe. *Vibrio vulnificus Infection Reporting on Death Certificates: The Invisible Impact of an Often Fatal Infection*. Epidemiology and Infection, Vol. 118, No. 3 (Jun., 1997), pp. 221-225

NOTATION

Colorex™ is a trademark of Dr. A. Rambach, France