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hygiena IS050 Muser Indicator Organism Tests Instruction Manual

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InSite® Salmonella **Environmental Salmonella Test**

Product No. IS050 (50 tests)

Introduction

Description and Intended Use

The InSite® Salmonella device is used after cleaning as a screening test for Salmonella enterica on food contact surfaces and other processing equipment containing stainless steel, plastic, rubber, ceramic or sealed concrete surfaces. A color change of medium from purple to bright yellow is considered presumptive positive.

InSite Salmonella devices should be used by trained personnel.

Scientific Principle

InSite Salmonella medium contains a balanced blend of proprietary selective agents and metabolic substrates for selective growth and differentiation of Salmonella enterica from other contaminants in a sample. The medium permits selective growth of Salmonella, while restricting the growth of other Gram-negative and Gram-positive bacteria. As the selected population grows, the medium becomes acidic; an incorporated pH indicator detects the pH change, and the color of the medium changes from purple to bright yellow. A visual color change of the medium from purple to bright yellow after 24 - 48 hours at 37 ± 1 °C indicates a presumptive positive test for Salmonella. Results cannot be considered negative until 48 hours of incubation.

Required Materials (Not Provided)

Dry Block Incubator (at 37 ± 1 °C) (Product No. INCUBATOR or INCUBATOR2)

Important Tips Before Starting the Test

- The foam tip swab is pre-moistened. Condensation may be visible inside the swab tube—this is normal.
- A naturally occurring precipitate may be seen in some devices—this is normal. To alleviate, gently shake the
 device to dissolve the precipitate, either before or after incubation. This will not affect test performance.
- Use aseptic techniques: Do not touch the swab or the inside of the sample device with your fingers.

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Test Procedure

 Holding the swab tube firmly, twist and pull the top with the swab out of the swab tube, and thoroughly swab a standard area of interest (e.g., 10 x 10 cm or 30 x 30 cm area for a typical flat surface like stainless steel). See the <u>AOAC RI Performance Tested Methods™ Certification</u> section for details about matrices used in the AOAC validation studies.

Important swabbing technique tips:

- Apply sufficient pressure to create flex in the swab shaft.
- Swab in a crisscross pattern vertically, horizontally and diagonally in both directions.
- Rotate the swab while collecting the sample to maximize sample collection on the swab tip.
- For irregular surfaces, maintain a consistent swabbing technique during each test; swab a large enough area to collect a representative sample.
- 2. Place the swab back in the swab tube and close the device firmly. Do not activate the test device.
- 3. For best results, incubate the device for 6 hours at 37 \pm 1 °C.

Alternative pre-enrichment times may be used:

• Omit pre-enrichment by skipping step 3 and immediately activating the device according to Step 4.

Note: Omitting pre-enrichment reduces the efficiency of Salmonella recovery and increases the probability of false-negative results.

• Extend the pre-enrichment me longer than the recommended 6 hours.

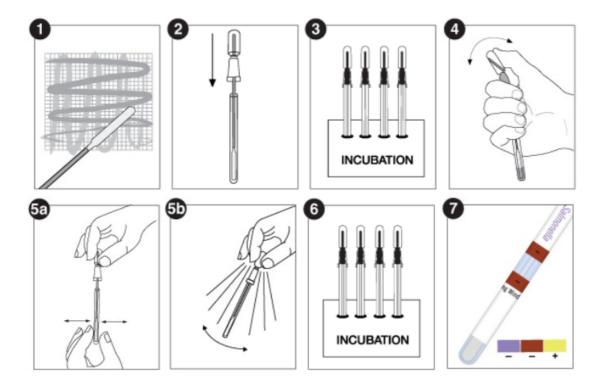
Note: Extending the pre-enrichment me increases the probability of false-positive results.

- 4. Remove the InSite Salmonella device from the incubator. To activate the device, hold the swab tube firmly, and use your thumb and forefinger to break the Snap-Valve by bending the bulb forward and backward.
- 5. Squeeze the bulb 3 to 4 times, expelling all the liquid into the tube, and gently massage the bottom of the tube by squeezing the tube 3 times. Then, shake for 3 seconds.

Note: This will help release cells from the swab and displace air bubbles.

- 6. Incubate for 18 42 hours at 37 ± 1 °C.
- 7. Observe the color change and record the result.

Note: A presumptive positive result can be read as early as 24 hours after sample collection. Results cannot be considered negative until after 48 hours of incubation. Refer to the <u>Interpretation of Results</u>.



Additional Information

Interpretation of Results



1. Clear Viewing Window

Results in the Viewing Window of the InSite Device (This diagram shows the label laid out flat.)

Results	Medium (viewing window)	Swab Tip
Positive	Yellow	Yellow
Negative	Brown	Yellow
Negative	Purple	Yellow
Negative	Purple	Purple

Interpretation of Color Results

Hold the swab tube vertically and compare the color of the medium in the label viewing window to the color chart printed on the label. If the color of the medium changes from purple to bright yellow within a total test me of 24 - 48 hours at 37 °C, the sample is considered presumptive positive for Salmonella. Results cannot be recorded as negative until the sample has been incubated for a total of 48 hours after sample collection. Use of a negative control is recommended.

Note: It is important to interpret the color change of the medium only and to disregard the color influence from the foam swab. Only bright yellow medium should be interpreted as a positive result for the presence of Salmonella in a sample.

Confirmation

Presumptive positive samples can be confirmed by streaking samples onto commonly used selective Salmonella agar plates or by any recognized confirmatory procedure. Typical Salmonella colonies on selective agar plates could then be further analyzed using biochemical, immunological or molecular methods.

Some strains of Citrobacter, Escherichia coli and Raoultella are known to produce false positive reactions in many Salmonella tests, including InSite Salmonella. Acidic substances such as sanitizers may also cause a positive color change.

AOAC RI Performance Tested Methods™ Certification

The detection of Salmonella enterica using the InSite Salmonella device has earned AOAC RI PTM Certification (License #022302) from the AOAC Research Institute.

The validation studies included swabs of the following environmental surfaces:

Matrix	Swabbing Area
Stainless Steel	30 x 30 cm (12 x 12 inch) 10 x 10 cm (4 x 4 inch)
Rubber	10 x 10 cm (4 x 4 inch)
Plastic	10 x 10 cm (4 x 4 inch)
Ceramic	10 x 10 cm (4 x 4 inch)
Sealed Concrete	10 x 10 cm (4 x 4 inch)

Storage and Stability

- Store at 2 8 °C (35 46 °F)
- Do not use past the expiration date on the label.

Disposal

Disinfect before disposal. InSite devices can be disinfected by autoclaving, incinerating or bleaching (soak in 20% bleach for 1 hour). Then, they can be placed in the trash. Alternatively, InSite devices may be discarded following local disposal procedures.

Safety and Precautions

- Intended for in vitro use only.
- Use good laboratory practices when performing this assay and when handling samples and materials.
- Components of InSite devices do not pose any health risk when used correctly. Used devices confirming
 positive results may be a biohazard and should be disposed of safely in compliance with Good Laboratory
 Practice and Health and Safety Regulations. Salmonella is a dangerous human pathogen. When handling
 samples that possibly contain Salmonella (presumptive positive tubes), extreme care should be taken to
 contain enriched samples.
- For further safety instructions, refer to the Safety Data Sheet (SDS) available at www.hygiena.com/documents.

Hygiena Liability

As with any culture medium-based test, InSite Salmonella results do not constitute a guarantee of quality of food, beverage products or processes tested with these devices. Hygiena will not be liable to the user or others for any loss or damage, whether direct or indirect, incidental or consequential from use of these devices. If this product is proven to be defective, Hygiena's sole obligation will be to replace product, or at its discretion, refund the purchase price. Promptly notify Hygiena within 5 days of discovery of any suspected defect and return product to Hygiena; contact Customer Service for a Returned Goods Authorization Number.

Contact Information

For more information, visit www.hygiena.com/contact. For technical support, visit www.hygiena.com/support.

Documents / Resources



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