



InSite[®] *Salmonella* Environmental *Salmonella* Test

Part No: IS050 (50 tests)



Description & 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 hours at 37 °C indicates a presumptive positive test for *Salmonella*. Results cannot be considered negative until 48 hours of incubation.

Required Materials (Not Provided)

- 37 ± 1 °C incubator For optimal heat transfer, we recommend using dry-block incubators, e.g., Hygiena[®] catalog number INCUBATOR or INCUBATOR2.

Test Procedures

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.

Important techniques for sample collection:

- Use aseptic technique: Do not touch the swab or the inside of the sampling device (i.e., the swab tube).
- Rotate the swab as the sample is being collected to ensure maximum sample pickup.
- Apply sufficient pressure to create flex in the swab shaft.

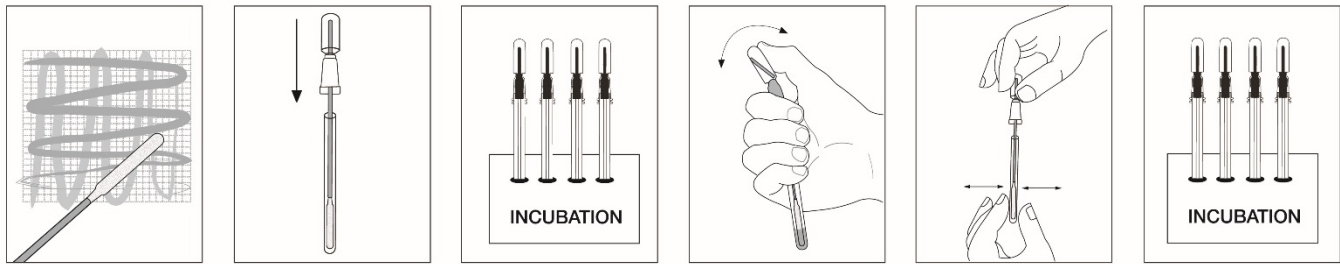


Figure 1. Workflow of the InSite *Salmonella* Device.

Step 1: Sample Collection & Pre-enrichment

- 1.1 Holding the swab tube firmly, twist and pull the top with the swab out of the swab tube. Thoroughly swab a standard 30 x 30 cm (12 x 12 in) area of interest for a typical flat surface. For irregular surfaces, ensure swabbing technique remains consistent for each test and swab a large enough area to collect a representative sample.
- 1.2 Place the swab back in the swab tube and close the device firmly. Do not activate the test device.
- 1.3 For best results, incubate the device for 6 hours at 37 ± 1 °C. Alternative pre-enrichment times may be used: see note about modified pre-enrichment procedures below.

Step 2: Activation & Selective Enrichment

- 2.1 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. Squeeze the bulb 3 to 4 times, expelling all the liquid into the tube.
- 2.2 Gently massage the bottom of the tube by squeezing the tube 3 times, then shake for 3 seconds. This will help release cells from the swab and displace air bubbles.
- 2.3 Incubate for 18–42 hours at 37 ± 1 °C. Observe the color change and record the result. A presumptive positive result can be read as early as 24 hours after sample collection. Results cannot be considered negative until 48 hours of incubation. Refer to the *Interpretation of Results*.

Note: Modified Pre-enrichment Procedure

Alternatively, Step 1.3 may be (a) omitted or (b) extended:

- a. To omit pre-enrichment, skip step 1.3 and immediately activate the device according to Step 2.1. Omitting pre-enrichment reduces the efficiency of *Salmonella* recovery and increases the probability of false-negative results.
- b. The pre-enrichment time may be extended longer than the recommended 6 hours. Extending the pre-enrichment time increases the probability of false-positive results.



Interpretation of 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 time of 24–48 hours at 37 °C, the sample is considered presumptive positive for *Salmonella*. See Figure 2. 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 (Table 1). 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.

Storage & Stability

- Store at 2–8 °C (35–46 °F)
- Check 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 at a biohazard waste disposal facility.

Safety & Precautions

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.

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 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. Please call Customer Service for a Returned Goods Authorization Number.

Contact Information

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

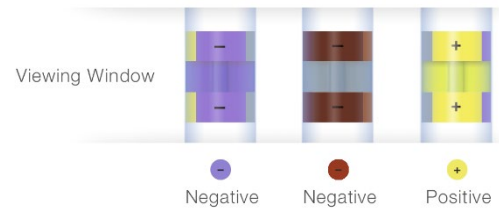


Figure 2. Results in the Viewing Window of the InSite Device.

Table 1: Interpretation of Color Results

Swab	Medium	Result
Purple	Purple	Negative
Yellow	Purple	Negative
Yellow	Brown	Negative
Yellow	Yellow	Positive