



Compact Dry™ SL

Ready-to-Use Medium for
Salmonella spp.



Compact Dry™ offers a simple and safe procedure to detect and quantify microorganisms in foods, beverages, raw materials, cosmetics, pharmaceuticals, and environmental samples.

Salmonella spp. is a genus of Gram-negative bacteria that consists of more than 2,500 serovars, most of which are pathogenic.

According to the standard set by the FDA, *Salmonella* must be totally absent in all food and environmental samples. A tolerance level has not been established because a low infectious dose can lead to fatal diseases.

Manufactured by

Shimadzu Diagnostics Corporation
3-24-6, Ueno, Taito-ku, Tokyo 110-0005 JAPAN
Tel: +81-3-5846-5707
contact@sdc.shimadzu.co.jp

Customer support and sales

sales@advancedfooddiagnostics.com

About the Test

Pre-Enrichment step: 35–37°C for 22 ± 2

Incubation time: 22 ± 2

Incubation temperature: 41–43°C

pH Adjustment: The pH of the product or 1:10 dilution of product should be between 6 and 7 for optimal growth of target microorganisms. If the pH is not between 6 and 7, adjust the pH of the product or 1:10 dilution with 1 N or 0.1 N NaOH for acidic products or 1 N or 0.1 N HCl for alkaline products.

Interpretation: Alkalinization of the plate produces yellow color indicating presumptive positive. Green color can be caused by decomposition of chromogenic substrate by a specific *Salmonella* spp. enzyme. Black/green colonies are generated by the hydrogen sulfide producing *Salmonella* spp.

Storage and shelf life: Room temperature, +1°C to +30°C, 18 months.

General Testing Protocol



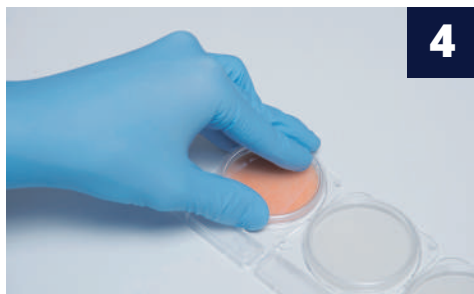
Remove the lid.



Dispense 1 ml of sample in the middle of the Compact Dry plate.



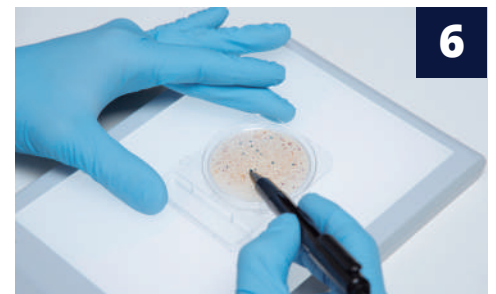
The sample diffuses passively and evenly across the dehydrated media sheet, rehydrating the dry medium into a gel within seconds.



Replace the lid and label the plate.

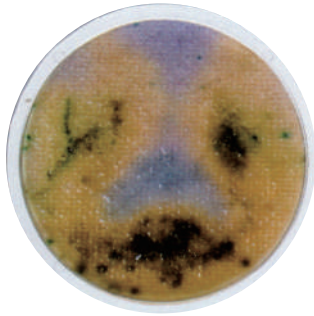


Turn over the plate (lid down) and incubate for the appropriate time and temperature.



Following incubation, count the number of colored microbial colonies.

Interpretation guide on reverse ➤



Interpretation

- The presence of *Salmonella* spp. on the plate is indicated by alkalization of the medium, allowing a change from purple to yellow.
- Hydrogen sulfide production may vary depending on the *Salmonella* serovar, therefore not all colonies may present blackening.
- Compact Dry SL plates contain a chromogenic substrate and a green colony color indicating presumptive *Salmonella* spp.
- *Salmonella* spp. motility can be seen (left) as some green/black colonies move away from the sample inoculation point towards the top of the plate.

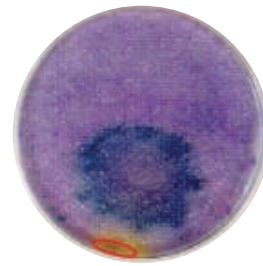
Presence/Absence for *Salmonella* ssp.

After pre-enrichment of the sample the results will be interpreted as present or absent of *Salmonella* ssp.



Result: Absent

Alkalinization of the medium has not occurred and there is no yellow color observed. Sample residue is shown and the sample is absent of *Salmonella* ssp.



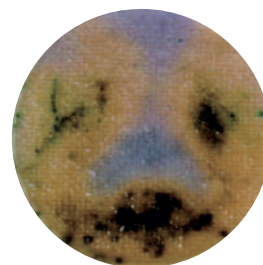
Result: Presumptive positive

A slight alkalization of the medium has occurred and a yellow color observed at the bottom of the plate. Sample residue is shown and the sample is a presumptive positive for *Salmonella* ssp. Confirmation of results can be done by selecting colonies from the yellow portion of the plate.



Result: Presumptive positive

A slight alkalization of the medium has occurred and a yellow color observed. The sample is a presumptive positive for *Salmonella* ssp. Confirmation of results can be done by selecting colonies from the yellow portion of the plate.

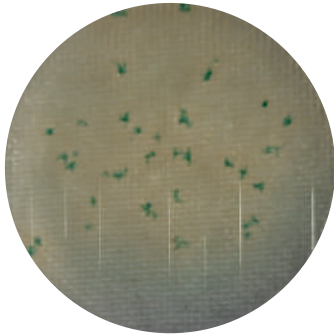


Result: : Presumptive positive

Alkalinization of the medium has occurred and a yellow color observed. Green colonies are observed due to the chromogenic reaction. Blackening of the medium due to hydrogen sulfide production is also observed. The motility of *Salmonella* ssp. is also present on this plate. The sample is a presumptive positive for *Salmonella* ssp. Confirmation of results can be done by selecting colonies from the yellow portion of the plate, or green/black colonies.

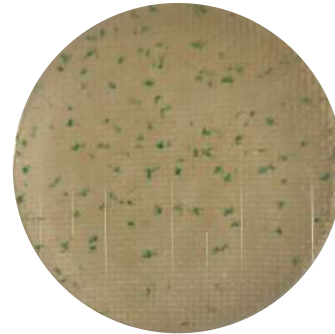
Enumeration

- *Salmonella* ssp. can be enumerated on Compact Dry with pure culture, direct addition of a liquid sample, from a 1:10 dilution of product or from further dilutions.



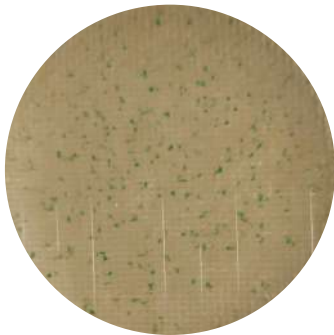
Total number of colonies: 36

- Alkalinization of the medium has occurred and a yellow color is observed. Green colonies are present and some motility is observed. Confirmation of results can be done by selecting colonies from the yellow portion of the plate or the green colonies.



Total number of colonies: 107

- Alkalinization of the medium has occurred and a yellow color is observed. Green colonies are present and some motility is observed. Confirmation of results can be done by selecting colonies from the yellow portion of the plate or the green colonies.



Total number of colonies: 240

- Alkalinization of the medium has occurred and a yellow color is observed. Green colonies are present and some motility is observed. The count can be estimated using etched gridlines on the back of the plate. Use the average colony count in a few large squares (1 cm²) and multiply by 20 to obtain approximate plate count.



Total number of colonies: (TNTC)

- The level of *Salmonella* ssp is high enough that colony formation is not observed. Alkalinization of the medium has occurred and a yellow color is observed. To obtain an accurate plate count further dilution of the samples is recommended.