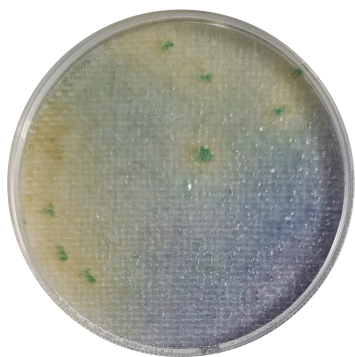




Compact Dry™ SL

Ready-to-Use Medium for
Salmonella spp.



Background

It is important to detect *Salmonella* spp. in food products and the food environment to limit the possibility of food poisoning. A mixing and dilution culture method has been widely used to determine microbial count. The method is time-consuming and requires complicated operations such as preparation of hot agar, mixing a dilution uniformly and/or spreading. To save operator time and make it possible for anyone to perform a bacterial count test without difficulty, Compact Dry was developed based on a new concept and technology applicable to the food industry.

Compact Dry SL detects *Salmonella* spp. qualitatively based on characteristics such as biochemical reactivity and motility. Using pre-enrichment culture, a rapid screening for *Salmonella* spp. is possible the next day.

Detection

Compact Dry SL contains chromogenic substrate and Novobiocin. The presence of *Salmonella* spp. is detected by alkalization of the medium by *Salmonella* spp. lysine decarboxylase ability. The plate color will change from blue-purple to yellow, and green colonies appear by decomposition of chromogenic substrate with specific enzyme on *Salmonella* spp. Black colonies are generated by hydrogen sulfide producing *Salmonella* spp.

Coliform generate a color change from blue-purple to red-purple by fermented lactose and/or sucrose in the medium.

Colonies sampled from the Compact Dry plate can be used for confirmation of *Salmonella* spp. by inoculation of colonies onto selective media.

Warnings and Precautions

1. General precautions

- Read and follow precisely the warnings and directions for use described in the package insert and/or label.
- Do not use the product after its expiration date. Quality of the product is not warranted after its shelf life expires.
- Do not use product that contains any foreign materials, is discolored or dehydrated, or has a damaged container.
- Use plates as soon as possible after opening. Return any unused plates to the aluminum bag and seal with tape to avoid light and moisture.
- Cap tightly after inoculation to avoid dehydration of gelled medium.

2. Safety precautions

- If medium or reagent comes into contact with eyes or mouth, immediately wash with water and consult a physician.
- Procedures with microorganisms involve certain risks of laboratory-acquired infections. Procedures should be carried out under the supervision of trained laboratory personnel with biohazard protection measures.
- Treat any laboratory equipment or medium that comes into contact with the specimen as infectious and sterilize appropriately.

3. Precautions for disposal of waste

- Sterilize any medium, reagent or materials by autoclaving or boiling after use, and then dispose of it as industrial waste according to local laws and regulations for disposal of such material.

4. User responsibilities

- It is the user's responsibility in selecting any test method to evaluate a sufficient number of samples with particular foods and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.
- It is the user's responsibility to determine that any test methods and results meet its customers or suppliers' requirements. The user must train its personnel in proper testing techniques.
- It is the user's responsibility to validate the performance of this method for use with any non-certified matrix.

5. Limitation of warranties

- Compact Dry plates are manufactured at ISO 9001:2015 facility. If any Compact Dry plate is proven to be defective by fault of the manufacturer or its authorized distributors, they may replace or, at their discretion, refund the purchase price of any plate. These are the exclusive remedies.

Storage and Shelf Life

Storage: Keep at room temperature (1–30°C)

Shelf life: Eighteen (18) months after manufacturing. Expiration date is printed on outer box label and aluminum bag label.

Package

Compact Dry SL 100 plates	Code 54058
Compact Dry SL 1400 plates	Code 54058-CS

Further Information

Customer Support

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Kit components, operating
instructions and interpretation



Test Kit Components

1. Compact Dry SL plates

Additional Reagents and Supplies Required, Not Provided

1. Prepared and sterilized medium made from Buffered Peptone Water (BPW) (Code 05131), EEM Broth (Code 05002)
2. Filtered stomacher bags
3. Blender or Stomacher or equivalent for homogenizing sample
4. Stand for bag
5. Disposable pipette (1 ml)
6. Sterilized water
7. Incubator: $36 \pm 1^\circ\text{C}$ and $42 \pm 1^\circ\text{C}$

Operating Procedure

Preparation of specimen

1. **Presence/Absence in Solid Foods:** Using a filtered stomacher bag, add 25 grams of product to 225 ml of Buffered Peptone Water (BPW) or appropriate pre-enrichment broth. Homogenize in stomacher for 1 minute.
2. **Presence/Absence in Liquid Product:** Add 9 times the volume of Buffered Peptone Water (BPW) or appropriate pre-enrichment broth to liquid sample. Filter sample through a $0.45 \mu\text{m}$ filter and add filter to BPW or other medium.
3. **Environmental Swab:** Sample the desired area with environmental sponge or swab and return to diluent.

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.

Pre-Incubation

1. Incubate prepared specimen 22 ± 2 hours at $36 \pm 1^\circ\text{C}$.

Directions for Compact Dry SL

1. Remove specimen from incubation and homogenize gently to mix.
2. Add 0.1 ml of the pre-enriched sample to the Compact Dry SL plate approximately 1 cm from the edge. Diffusion will not occur at this point. Add 1 ml of Butterfield's Phosphate Buffer at the opposite point on the plate to the specimen. The buffer will diffuse and the plate will wet uniformly.
3. Cap the plate and invert. Incubate 22 ± 2 hours at $42 \pm 1^\circ\text{C}$.

Precautions for Use

1. Follow this operating procedure and incubation temperatures precisely for *Salmonella* spp. detection. If incubation temperatures are too high, false-negative results may occur.
2. To avoid microbial contamination, do not touch the surface of the plate during inoculation.
3. During incubation, keep cap tight to avoid any possible dehydration.
4. Use of filtered stomacher bags is recommended to eliminate risks of carryover of tiny pieces of foodstuffs onto the surface of the medium.

Interpretation for Screening

Salmonella spp. Positive

Black to green isolated or fused colonies are observed, and the sheet around the colonies changes to yellow. If a large quantity of *Salmonella* spp. is inoculated on a plate, no isolated colonies are formed. There may be several spots with fused black or green colonies, but the entire plate becomes yellow.

Salmonella spp. Negative

There is no color change, and no black or green colonies are observed.

Caution: *Pseudomonas* or *Proteus* may also cause a yellow color change on the plate. But this yellow portion is small and limited because these organisms have less motility.

Precautions for Interpretation

1. A *Salmonella* spp. positive or negative result should be followed by an identification/confirmation test result.

Isolation of *Salmonella*

1. Colonies on the Compact Dry plate may be used for isolation/identification tests. Carefully pick up black or green colonies with a loop, and culture on MLCB agar for isolation of *Salmonella* spp. It is also possible to isolate *Salmonella* spp. from a yellowed portion of the plate.
2. After the isolation of a single colony on an agar plate, continue and follow conventional identification/confirmation test procedure.