CompactDry™ SL

Simple and Easy Dry Medium for *Salmonella* detection

***Background:**

The food poisoning outbreak caused by *Salmonella* is increasing in recent years, and the necessity of *Salmonella* control becomes important especially for food manufacturing process, and handling procedures. Especially for food manufacturers, it is important to detect and *Salmonella* rapidly and simply for the purpose of curtailment of product stock and confirming safety of the product.

CompactDry™ SL is a simple dry culture medium that detects existence of *Salmonella* qualitatively based on its specific character, such as biochemical reactivity and motility.

Using pre-enrichment culture, a rapid screening for *Salmonella* is possible on the next day. A colony on CompactDry™ SL can be picked up for further tests to get confirmation result of *Salmonella*.

***Features and Benefits:**

1) Ready to use and portable plate: No need to prepare medium, which eliminates waste of medium as well as apparatus to prepare the medium.
2) CompactDry™ SL can detect one day earlier than conventional culture method.
3) Detection of colonies on plate is simple and clear.
4) Isolated colonies on the plate can be fished for further identification tests.

Intended Use

This product is intended for use by microbiologists for the enumeration of *Salmonella* in food and related samples.

***Detection Principle:**

CompactDry™ SL is a dry medium for *Salmonella* detection, which contains chromogenic substrate and Novobiocin.

The presence of *Salmonella* in the sample is detected by the combination of different test principles, alkalization of the medium by *Salmonella*'s lysine decarboxylase ability (medium color will change blue purple to yellow), greening colony caused by decomposition of chromogenic substrate with specific enzyme on *Salmonella* (black colonies are generated by hydrogen sulfide producing *Salmonella*) and motility of *Salmonella*.

Additionally, the colonies picked up from CompactDry™ SL can be used for confirmation of *Salmonella* after the inoculation of colonies onto the selective media. Coliform generate color change from blue-purple to red-purple by fermented lactose and/or sucrose in the medium.

Please follow this operating procedure precisely, especially how to inoculate sample and sterilized water, to utilize specific advantages of CompactDry™ SL.

***Operating Procedure:**

Preparation of Apparatus and Materials

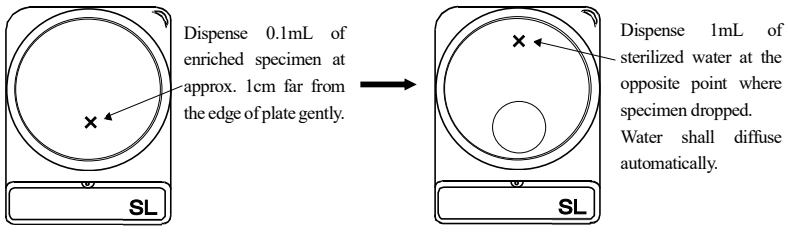
1) Prepared and sterilized medium made from Buffered Peptone Water (BPW), EEM Broth
2) Sterilized Homogenize Bag with filter
3) Homogenizer
4) Stand for Homogenize Bag
5) Sterilized Disposable Pipette (1mL) or Sterilized Measuring Pipette
6) Sterilized Water
7) Incubator (36±1 °C and 42±1 °C)

***Preparation of Specimen**

1. Solid Foodstuffs:
   Take 25g of solid specimen into the sterilized homogenized bag. Add 225mL of sterile Buffered Peptone Water or EEM Broth into the bag and homogenize by stomacher for about one (1) minute.
2. Water or Liquid Foodstuffs:
   1) Add 9 times volume of Buffered Peptone Water or EEM Broth to liquid specimen.
   2) Filtrate the liquid sample through membrane filter, and put the filter into BPW or EEM Broth.
3. Wiped sample:
   Add 9 times volume of Buffered Peptone Water or EEM Broth to the whole liquid made from wiped sample.

***Direction**

1) Prepared specimen shall be kept in the closed homogenized bag, and incubate the bag 22±2 hours at 36±1 °C in the Incubator as pre-enrichment culture.
2) Take the bag out from the incubator and rub the bag for homogenized. Use sterilized disposable pipette for sample inoculation. Dispense 0.1 mL of enriched specimen on the dry sheet (approx. 1cm far from the edge of plate) gently. This enriched culture will stay at dropped point. Diffusion of this dropped specimen shall not reach to the edge of plate.



3) After the inoculation of the enriched culture, dispense 1mL of sterilized water gently at the opposite point where the specimen dropped. Sterilized water will diffuse automatically and the sheet will be wet uniformly.
4) Turn over the plate capped, put in an incubator. And incubate 22 ± 2 hours at 42±1 °C.

***Precaution for use**

1) Please follow this operating procedure precisely for utilization of specific nature of *Salmonella*. Use accurate incubater to follow the incubation temperature precisely. If incubation temperature elevates from the range, it may effect the occurrence of false-negative responses.
2) Be careful to avoid any contamination by falling microorganisms, or touching the medium during inoculation.
3) Keep cap tight of CompactDry™ SL to avoid any possible dehydration during incubation.
4) It is recommended to use a homogenize bag with filter to eliminate risks of carry over of tiny pieces of foodstuffs into the medium.

***Interpretation**

Interpretation for Screening

***Salmonella* Positive**

Black to green isolated or fused colonies are observed, and sheet around the colonies is changed to yellow. If a large quantity of *Salmonella* is inoculated on a plate, no isolated colonies are formed (there may be several spots with fused black or green colonies), but whole plate sheets become seemingly yellow.

***Salmonella* Negative**

There is no color change that occurred on the sheet. If it were occurred, the sheet color would be changed to red or reddish purple. No black or green colonies are observed.

Caution: The sheet color might be changed to yellow caused by *Pseudomonas* or *Proteus.* But yellow portion is small and limited because of their reduced motility.

***Isolation of *Salmonella* from CompactDry™ SL**

1) It is possible to use colonies on CompactDry™ sheet for isolation / identification tests. Pick up black to green colonies with loop, and smear and culture on MLCB agar for isolation of *Salmonella*.
2) After the isolation of single colony on the agar plate, continue and follow conventional identification/confirmation test procedure.

***Precaution for Interpretation**

1) Final report for *Salmonella* positive or negative result shall be followed by identification/confirmation test result.
2) It is easy to isolate *Salmonella* from colonies away from the point where specimen inoculated, because of motility of *Salmonella*.
3) It is also possible to isolate *Salmonella* not from colonies but from yellowed portions.

***Warning and Direction for Use**

1. General precautions

1) Read and precisely follow the warning and directions for use described on this package insert and/or label.
2) Do not use the product after its expiry date. Quality of the product is not warranted after being expired.
3) Do not use the product that contains any foreign materials, discolored, or dehydrated, or its container is damaged.
4) After opening the aluminum bag, any plates unused should be put back into the aluminum bag to be sealed with tape to avoid light and moisture and use up as soon as possible.
5) Cap tightly again after inoculation to avoid dehydration of medium during incubation.

2. Precautions for danger

1) When if medium or reagent touched eyes or mouth, immediately wash with plenty of water, and consult a physician.
2) Manipulations with microorganisms involve always certain risks of laboratory-acquired infections. Manipulations should be practiced under the supervision of key specialists with biohazard protection measures.
3) Any laboratory equipment and medium that touched with specimen should be regarded as infectious in the laboratory.

3. Precautions for disposal of waste

Any medium, reagent and materials must be sterilized by autoclaving or boiling water after use, and then dispose them as industrial waste according to the Law on Waste Disposal and Cleaning. Also follow local laws and regulations related to dispose.

4. Limitation of Warranties

If CompactDry™ plate has proven to be defective, Shimadzu Diagnostics Corporation or Shimadzu Diagnostics Corporation's authorized distributor will replace or refund at the purchase price of the plate.

Storage and Shelf life

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

Shelf life: Eighteen (18) months after manufacturing.

Shelf life is printed on both the label of the outer box and the aluminum bag.

Package

CompactDry™ SL 100 plates

Code HS9401

Further information

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