



- Listeria colonies appear blue/light blue
- Culture conditions: culture at $35^{\circ}\text{C} \pm 1^{\circ}\text{C}$ or $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$ for $24\text{ h} \pm 2\text{ h}$

Main ingredients: Chromogenic medium containing selective reagent

Applicable samples: Environment and food

Storage conditions: Room temperature ($1\text{-}30^{\circ}\text{C}$)

Shelf life: 18 months

Strengths Compact Dry "Nissui" LS 40 pieces / box Code 54060-40

Compact Dry "Nissui" LS 240 pieces / box Code 54060-240

"Nissui" Swab 1ml Smear Stick 200 / box Code 06738

EZ Reach Sponge Stick with Handle 100pcs/carton Code EZ-10HC-PUR

**Compact Dry test dish is produced using
the unique patented technology of Nissin**

Compact Dry™ LS Listeria test dish of Nissin is a pre-prepared medium containing selective reagents, nutrients, and color indicator. It can be used to detect *Listeria monocytogenes* and also can be used for the detection of *Listeria* in products. The species of *Listeria* to be tested include: *L. monocytogenes*, *L. grayi*, *L. welshimeri*, *L. ivanovii*, *L. innocua*.

Environmental conditions and disinfectants have the potential to inhibit and damage microorganisms. The recommended Swab smudge stick and EZ Reach smear sponge from Nissui contain microbe-repairing ingredients without the need for additional BPW. The repair process of *Listeria* in the smear stick and smear sponge is not an enrichment step.



1. Typical colony of *Listeria*, blue/light blue colonies

Qualitative interpretation: *Listeria* is detected.

Semi-quantitative interpretation: recorded as a form of guidance for sampling areas and corporate standards. (such as low, medium, high, or acceptable and unacceptable).

Quantitative interpretation: Number of *Listeria* on the test dish: 18.

Please refer to the “Quantitative Sampling and Interpretation” section to calculate the number of *Listeria* in each sample.



2. The test dish is cultured for 24 hours without colony growth.

Qualitative interpretation: *Listeria* is not detected.

Semi-quantitative interpretation: recorded as a form of guidance for sampling areas and corporate standards. (such as low, medium, high, or acceptable and unacceptable).

Quantitative interpretation: Number of *Listeria* on the test dish: <1.

Please refer to the section “Quantitative Sampling and Interpretation” to calculate the number of *Listeria* in each sample.

Compact Dry™ LS Listeria test dish



3. The CompactDry LS Listeria test dish is selective for Listeria and the colony is shown in blue/light blue.

Qualitative interpretation: Listeria is detected.

Semi-quantitative interpretation: recorded as a form of guidance for sampling areas and corporate standards. (such as low, medium, high, or acceptable and unacceptable).

Quantitative interpretation: Number of Listeria on the test dish: 72.

Please refer to the section “Quantitative Sampling and Interpretation” to calculate the number of Listeria in each sample.



4. When there are many colonies, there may be many small, unclear, or all blue colonies on the test dish.

Qualitative interpretation: Listeria is detected.

Semi-quantitative interpretation: recorded as a form of guidance for sampling areas and corporate standards. (such as low, medium, high, or acceptable and unacceptable).

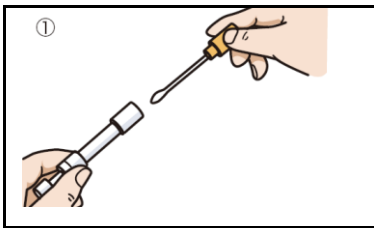
Quantitative interpretation: The number of Listeria monocytogenes on the test dish is Too Numerous To Count (TNTC).

Listeria detection in the environment

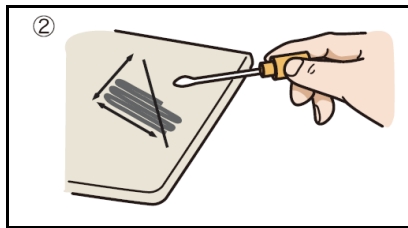
Sample Preparation

Collect environmental samples with sampling equipment such as smear stick and smear sponge.

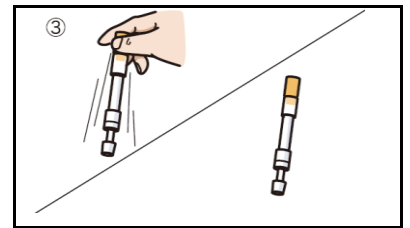
A. Sampling method with smear stick



① Open Swab's yellow cap with a cotton swab

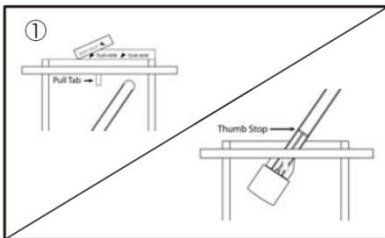


② Smear the area to be inspected to 10*10cm, apply appropriate force, and pay attention to the continuous rotation of smear stick

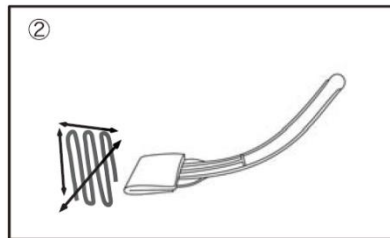


③ Put the cotton swab back into the container, tighten the cap and shake it properly. The Swab is placed at room temperature (20-30 ° C) for 1 h, and the longest time is not more than 1.5 h to repair the damaged Listeria.

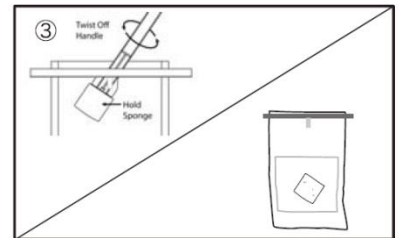
B. Sampling method with smudge sponge



① Peel the top of the sampling bag along the indicator line, hold the plastic handle line above the hand, and remove the smear sponge.



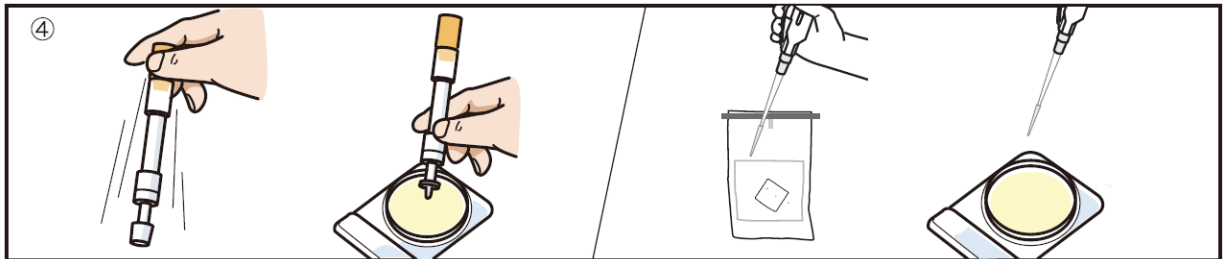
② The area to be inspected is 30*30cm, and the handle is pressed and bent to ensure that the sponge head is in full contact with the sampling surface and note that the tip of the sponge is smeared to the same position.



③ Put the smear sponge back into the sampling bag and rotate the handle counterclockwise to drop the sponge head into the sampling bag and seal it. Store at room temperature (20-30 ° C) for 1 h, and the longest time is not more than 1.5 h to repair the damaged Listeria.

Compact Dry™ LS Listeria test dish

Vaccination culture

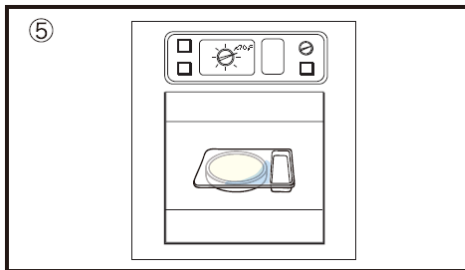


Swab smear stick

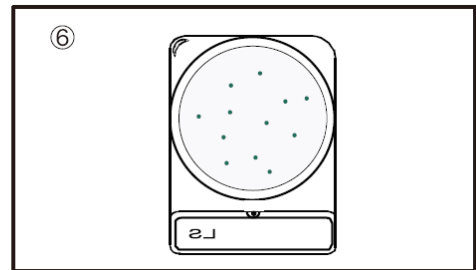
After proper shaking, open the port screw cap and drop 1ml sample into the LS test dish.

EZ Reach smear sponge

Extrusion of the liquid in the sponge, pipetting 1 ml of the sample solution, and dropping it vertically into the LS test dish.



Inverted into the incubator at $35^{\circ}\text{C} \pm 1^{\circ}\text{C}$ or $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$ for $24\text{ h} \pm 2\text{ h}$



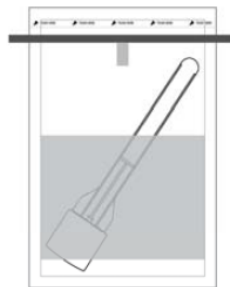
Interpretation of Listeria. Pour it on a white background or translucent plate, and count it with a visual and colony counter.

Environmental sampling tool



Nissui Swab Smear Stick

The recommended smearing area for 1ml BPW buffer solution is $10 \times 10\text{cm}$



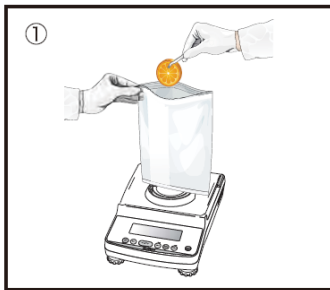
EZ Reach Sponge smear stick with handle

The recommended smearing area for 10ml Hicap buffer solution is $30 \times 30\text{cm}$

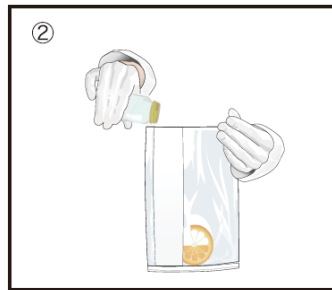
Compact Dry™ LS Listeria test dish

Listeria detection in food

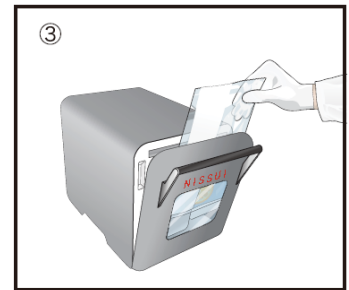
Sample Preparation



Sample dilutions of 1:10 or greater dilution factor are prepared. Weigh 25g of food sample, place in a suitable sterile container.

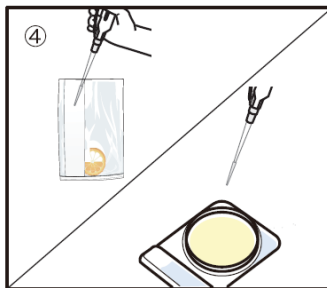


Add 225 ml of BPW sterile dilution.

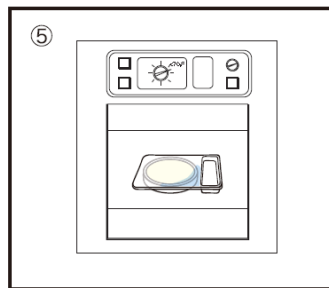


Stir or homogenize the sample. Store at room temperature (20-30 ° C) for 1 h, and the longest time is not more than 1.5 h to repair the damaged Listeria.

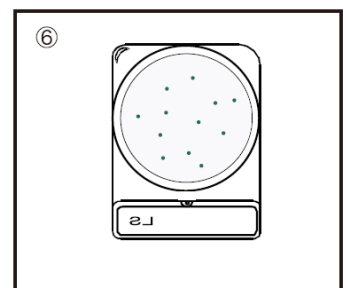
Vaccination culture



Pipetting 1 ml of the sample solution, and dropping it vertically into the LS test dish.



Inverted into the incubator at 35 ° C ± 1 ° C or 37 ° C ± 1 ° C for 24 h ± 2 h.



Interpretation of Listeria. Pour it on a white background or translucent plate, and count it with a visual and colony counter.

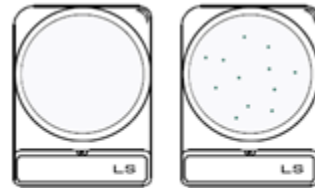
Compact Dry™ LS Listeria test dish

CompactDry LS Listeria Test Method can be used for qualitative, semi-quantitative and quantitative detection

Qualitative detection

The results are counted as detected and not detected based on the presence or absence of blue/light blue colonies.

If the result of yes/no is sufficient to meet the reporting requirements, then you can choose qualitative testing.



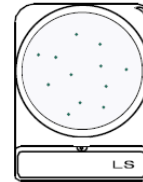
Not detected

Detected

Semi-quantitative

The results are recorded based on the relative number of blue/light blue colonies.

If you are taking the appropriate measures based on the relative number of colonies and there is no need to record the actual number of colonies, you can choose semi-quantitative testing.

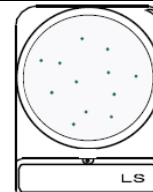


The assay of Listeria should be recorded as a guideline for sampling areas and corporate standards. (such as low, medium, high, or acceptable and unacceptable)

Quantitative detection

Count all blue/light blue colonies.

If you take the appropriate action based on the actual number of colonies, you can use quantitative testing.



The number of Listeria on the test dish is 12

Please refer to the "Quantitative Sampling and Interpretation" section on the next page to calculate the number of Listeria in each sample.

Compact Dry™ LS
Listeria test dish



NISSUI

Compact Dry™ LS

Coliform bacteria test dish

Quantitative sampling and interpretation

The number of colonies per unit area is calculated in a quantitative manner using a CompactDry LS Listeria test dish.

Sampling stability: Use the same type of sampling tool, template area, technician and sampling technique.

Sampling sensitivity:

- Sampling area: The size can be set according to regulations, internal standards, and monitoring locations.
- Sampling tools: The volume of the wetting fluid and the ratio of the inoculum amount affect the dilution factor.

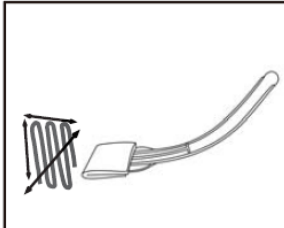
In order to determine Listeria in a unit sampling area, the following data needs to be recorded:

1. Sampling area
2. The amount of liquid in the wet sampling device
3. Inoculation volume
4. Number of colonies on the test dish

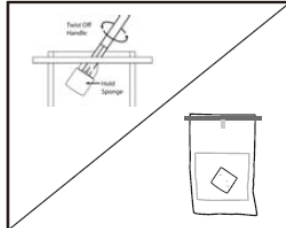
Calculate the number of colonies per unit sampling area using the following formula.

$CFU/area = \text{number of colonies} * (\text{ml of moisturizing solution}) / \text{sampling area}$

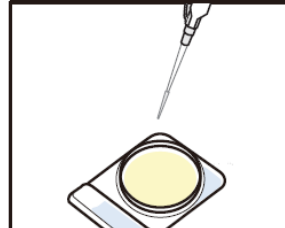
Example: Sponge sample method



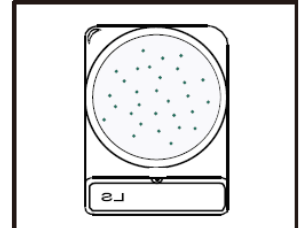
Wet the sponge with 10 ml of liquid and smear the sampling surface, such as 1 square foot (1ft²), about 30*30 cm.



Put the smear sponge back into the sampling bag and repair the damaged Listeria directly at room temperature.



Pipette 1ml of sample solution and add it to the LS Listeria test dish



After cultivation, count colonies (This example assumes that the number of colonies is 30)

- A. Wet fluid volume mL-----10
- B. Inoculum size mL----- 1
- C. A divided by B -----10
- D. Number of colonies on the test dish ----- 30
- E. C multiplied by D ----- 300
- F. Sampling area -----1ft²
- G. E divided by F----- 300CFU/1ft²