

Technical Information

Soyabean Casein Digest Agar Plate w/ Lecithin and Tween 80, w/ β -Lactamase (Tryptone Soya Agar Plate w/ Lecithin and Tween 80 w/ β -Lactamase)

Product Code: PM 2809

Application: Recommended for determining efficiency of containers, equipment surfaces, water miscible cosmetics and inactivation of β lactam antibiotics.

Composition**

Ingredients	Gms / Litre
Tryptone	15.000
Soya Peptone	5.000
Sodium chloride	5.000
Lecithin	0.700
Polysorbate 80 (Tween 80)	5.000
Agar	15.000
β -lactamase I	330.000
Final pH (at 25°C)	7.3 $\pm$ 0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Tryptone Soya Agar with Lecithin and Polysorbate 80 is used in RODAC (Replicate Organism Detection and Counting) plates (1) for the detection and enumeration of microorganisms present on surfaces of sanitary importances (2,3). Tryptone and Soya peptone provide nitrogenous compounds and other nutrients essential for microbial replication. Lecithin and polysorbate 80 (Tween 80) are neutralizers reported to inactivate residual disinfectants from where the sample is collected (4). Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene, formalin and with lecithin ethanol (5). Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation. The presence and number of microorganisms is determined by the appearance of colonies on the agar surface (6). After counting the colonies, carry out biochemical testing for identification.

Type of specimen

Swabs of containers, Equipment surfaces, Water miscible cosmetics etc.

Specimen Collection and Handling:

For swabs of containers, equipment surfaces, water miscible cosmetics samples follow appropriate techniques for handling specimens as per established guidelines (1).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. It is recommended to store the plates at 24-30°C to avoid minimum condensation.
4. Further biochemical test must be carried out for complete identification.



Ready Prepared Media

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Quality Control

Appearance

Sterile Tryptone Soya Agar w/ Lecithin and Tween 80, w/ β -lactamase in 90mm disposable plate with smooth surface and absence of black particles/cracks/bubbles

Colour

Light yellow coloured medium.

Quantity of Medium

25ml of medium in 90 mm disposable plates.

Sterility check

Passes release criteria

Reaction

7.10-7.50

Cultural Response

Growth Promotion Test of as such plates was carried out and growth was observed after incubation at 30-35°C for ≤ 3 days. Simultaneously growth promotion test was carried out on plates which were seeded with 100 mcg/0.1ml of Benzyl Penicillin.

Organism	Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Growth w/ antibiotic	Recovery w/ antibiotic
Bacillus subtilis subsp. spizizenii ATCC 6633 (00003*)	50 -100	luxuriant	35 -100	≥ 70 %	30 -35 °C	18 -24 hrs
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %
Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %
Proteus mirabilis ATCC 25933	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %
Enterococcus faecalis ATCC 29212 (00087*)	50 -100	luxuriant	35 -100	≥ 70 %	luxuriant	≥ 70 %

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 20-30°C Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal



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Ready Prepared Media

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Further Reading

1. Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
2. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
3. Richardson (Ed)., 1985, Standard Methods for the Examination of Dairy Products, 15th ed., APHA, Washington, D.C.
4. Brummer, 1976, Appl. Environ. Microbiol., 32:80.
5. Favero (Chairman), 1967, Biological Contamination Control Committee, a state of the art report., Am. Assoc. for contamination control.
6. Murray PR, Baron, Pfaller, and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.
7. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
8. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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