

Soyabean Casein Digest Agar Plate w/ 1% Polysorbate 80 & 1% Glycerine MP5270

Intended use:

Recommended for determining efficiency of sanitization of containers, equipments, surfaces, water miscible cosmetics etc.

Composition**

Ingredients	Gms / Litre
Tryptone #	15.000
Soya peptone	5.000
Sodium chloride	5.000
Agar	15.000
Polysorbate 80	10.000 ml
Glycerol	10.000 ml
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Pancreatic digest of casein

Directions

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

Principle And Interpretation

Tryptone Soya Agar with Lecithin and Polysorbate 80 is used in RODAC (Replicate Organism Detection and Counting) plates (3) for the detection and enumeration of microorganisms present on surfaces of sanitary importances (6,8). This medium is without the presence of lecithin, w/1% polysorbate 80 and 1% Glycerol.

Tryptone and Soya peptone provide nitrogenous compounds and other nutrients essential for microbial replication. Polysorbate 80 (Tween 80) are neutralizers reported to inactivate residual disinfectants from where the sample is collected (1). Polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene, formalin and with lecithin ethanol (2).

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 (7). After counting the colonies, carry out biochemical testing for identification.

Type of specimen

Environmental monitoring samples

Specimen Collection and Handling:

For Environmental monitoring samples follow appropriate techniques for sample collection, handling and processing.

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

Warning and Precautions

Read the label before opening the pack. 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 strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay in development.

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.

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.

Quality Control

Appearance

Sterile Soyabean Casein Digest Agar Plate w/ 1% Polysorbate 80 & 1% Glycerine in 90 mm disposable plates.

Colour of medium

Light yellow coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

pH

7.10-7.50

Sterility Test

Passes release criteria

Cultural response

Cultural characteristics was observed after an incubation for Bacterial at 30-35°C 18-24 hours and for Fungal at 30-35°C <=5days.

Organism	Inoculum (CFU)	Observed Lot value (CFU)	Recovery
<i>Bacillus subtilis subsp. spizizenii</i> ATCC 6633 (00003*)	50 -100	35 -100	>=70 %
<i>Staphylococcus aureus subsp. aureus</i> ATCC 25923 (00034*)	50 -100	35 -100	>=70 %
<i>Staphylococcus aureus subsp. aureus</i> ATCC 6538 (00032*)	50 -100	35 -100	>=70 %
<i>Escherichia coli</i> ATCC 25922 (00013*)	50 -100	35 -100	>=70 %
<i>Escherichia coli</i> ATCC 8739 (00012*)	50 -100	35 -100	>=70 %
<i>Escherichia coli</i> ATCC 11775 (00090*)	50 -100	35 -100	>=70 %
<i>Escherichia coli</i> NCTC 13167 (00179*)	50 -100	35 -100	>=70 %
<i>Escherichia coli</i> NCTC 9002	50 -100	35 -100	>=70 %
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	50 -100	35 -100	>=70 %
<i>Pseudomonas aeruginosa</i> ATCC 9027 (00026*)	50 -100	35 -100	>=70 %
<i>Pseudomonas aeruginosa</i> ATCC 10145 (00024*)	50 -100	35 -100	>=70 %
<i>Salmonella</i> Abony NCTC 6017 (00029*)	50 -100	35 -100	>=70 %
<i>Micrococcus luteus</i> ATCC 9341	50 -100	35 -100	>=70 %
<i>Streptococcus pneumoniae</i> ATCC 6305	50 -100	35 -100	>=70 %
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	50 -100	35 -100	>=70 %
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	50 -100	35 -100	>=70 %

<i>Candida albicans</i> ATCC 10231 (00054*)	50 -100	35 -100	>=70 %
<i>Candida albicans</i> ATCC 2091 (00055*)	50 -100	35 -100	>=70 %
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50 -100	25 -70	50-70%
<i>Clostridium perfringenes</i> ATCC 13124 (00007*)	50 -100	35 -100	>=70 %

Key : (#)- Formerly known as *Aspergillus niger* (*) - 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

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 (4,5).

Reference

1. Forbes B. A., Sahm A. S. and Weissfeld D. F., 1998, Bailey and Scotts Diagnostic Microbiology, 10th Ed., Mosby Inc. St. Louis, Mo
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3. Indian Pharmacopoeia, 2018, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. 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.
6. The United States Pharmacopoeia , 2019, The United States Pharmacopoeial Convention Inc., Rockville, MD.

Revision : 00/ 2020

Disclaimer :

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