

Soyabean Casein Digest Agar Plate w/ 0.5% Lecithin and 4% Polysorbate 80 (Gamma Irradiated) (Triple pack)

MP1943IGT

Intended use

Recommended for cultivation of a wide variety of microorganisms from clinical and non-clinical samples and for sterility testing in pharmaceutical procedures.

Composition**

| Ingredients | Gms / Litre |
|---------------------|-------------|
| Tryptone # | 15.000 |
| Soya peptone | 5.000 |
| Sodium chloride | 5.000 |
| Agar | 15.000 |
| Lecithin | 5 ml |
| Polysorbate 80 | 40 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

Soyabean Casein Digest Agar is a widely used medium, which supports the growth of wide variety of organisms even that of fastidious ones such as *Neisseria*, *Listeria* and *Brucella* etc. It is also recommended by various pharmacopoeias as sterility testing medium (3,7).

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 (1). Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene, formalin and with lecithin ethanol (2). Sodium chloride maintains the osmotic balance.

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

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.This medium is general purpose medium and may not support the growth of fastidious organisms.

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/ 0.5% Lecithin and 4% Polysorbate 80 in 90 mm disposable plates.

Colour of medium

Light yellow coloured medium

Quantity of medium

30 ml of medium in 90 mm disposable plates.

pH

7.10-7.50

Dose of Irradiation (Kgy)

13.00 - 20.00

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) | Growth | Recovery |
|--|----------------|-----------|----------|
| <i>Bacillus subtilis subsp. spizizenii</i> ATCC 6633 (00003*) | 50 -100 | luxuriant | >=70 % |
| <i>Staphylococcus aureus subsp. aureus</i> ATCC 25923 (00034*) | 50 -100 | luxuriant | >=70 % |
| <i>Staphylococcus aureus subsp. aureus</i> ATCC 6538 (00032*) | 50 -100 | luxuriant | >=70 % |
| <i>Escherichia coli</i> ATCC 25922 (00013*) | 50 -100 | luxuriant | >=70 % |
| <i>Escherichia coli</i> ATCC 8739 (00012*) | 50 -100 | luxuriant | >=70 % |
| <i>Escherichia coli</i> ATCC 11775 (00090*) | 50 -100 | luxuriant | >=70 % |
| <i>Escherichia coli</i> NCTC 13167 (00179*) | 50 -100 | luxuriant | >=70 % |
| <i>Escherichia coli</i> NCTC 9002 | 50 -100 | luxuriant | >=70 % |
| <i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*) | 50 -100 | luxuriant | >=70 % |
| <i>Pseudomonas aeruginosa</i> ATCC 9027 (00026*) | 50 -100 | luxuriant | >=70 % |
| <i>Pseudomonas aeruginosa</i> ATCC 10145 (00024*) | 50 -100 | luxuriant | >=70 % |
| <i>Salmonella</i> Abony NCTC 6017 (00029*) | 50 -100 | luxuriant | >=70 % |
| <i>Micrococcus luteus</i> ATCC 9341 | 50 -100 | luxuriant | >=70 % |
| <i>Streptococcus pneumoniae</i> ATCC 6305 | 50 -100 | luxuriant | >=70 % |

| | | | |
|--|---------|-----------|--------|
| <i>Salmonella</i> Typhimurium ATCC 14028 (00031*) | 50 -100 | luxuriant | >=70 % |
| <i>Enterococcus faecalis</i> ATCC 29212 (00087*) | 50 -100 | luxuriant | >=70 % |
| <i>Candida albicans</i> ATCC 10231 (00054*) | 50 -100 | luxuriant | >=70 % |
| <i>Candida albicans</i> ATCC 2091 (00055*) | 50 -100 | luxuriant | >=70 % |
| # <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*) | 50 -100 | luxuriant | 50-70% |
| <i>Clostridium perfringenes</i> ATCC 13124 (00007*) | 50 -100 | luxuriant | >=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. Brummer, 1976, Appl. Environ. Microbiol., 32:80.
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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.
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6. Murray PR, Baron, Pfaller, and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.
7. The United States Pharmacopoeia , 2019, The United States Pharmacopoeial Convention Inc., Rockville, MD.

Revision : 00/ 2019

Disclaimer :

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