Technical Data

Soyabean Casein Digest Agar Plate w/ 0.1% Polysorbate 80 (gamma irradiated)(Triple Pack)

MP5311GT

Intended use

Recommended for cultivation of wide variety of microrganisms

Composition**

Ingredients	Gms / Litre
Tryptone	15.000
Soya Peptone	5.000
Sodium chloride	5.000
Polysorbate 80 (Tween 80)	1.000 ml
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

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. The medium with addition of blood provides perfectly defined haemolysis zones, while preventing the lysis of erythrocytes due to its sodium chloride content. It has been frequently used in the health industry to produce antigens, toxins etc. It's simple and inhibitor-free composition makes it suitable for the detection of antimicrobial agents in the food and other products. Tryptone Soya Agar is recommended by various pharmacopoeias as sterility testing medium (6, 3).

Tryptone Soya Agar conforms as per USP (6) and is used in microbial limit test and antimicrobial preservative - effective test. Gunn et al (2) used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5%v/v blood. The combination of tryptone and soya peptone makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance. Polysorbate 80 is a neutralizer.

Type of specimen

Pharmaceutical samples

Specimen Collection and Handling:

For Pharmaceutical samples follow appropriate techniques for sample collection, handling and processing as per pharmacopeias. 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 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 ta 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/ 0.1% Polysorbate 80 in 90 mm disposable plates.

Colour of medium

Amber coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

Reaction

7.10-7.50

Dose of irradiation (Kgy)

13.00- 20.00

Sterility Test

Passes release criteria

Cultural Response

Growth Promotion was observed after an incubation at 30-35°C for 18-24 hours for bacteria and for fungus <=5 days.

Recovery rate

Recovery rate is considered 100% for bacterial growth on Blood Agar and fungal growth on Sabouraud Dextrose Agar.

Growth promoting properties

Growth of microorganism comparable to that previously obtained with previously tested and approved lot of medium occurs at the specified temperature for not more than the shortest period of time specified inoculating <=100 cfu (at 30-35°C for 18 hours).

Organism	Inoculum (CFU)	Growth	Recovery
Growth promoting			
Bacillus subtilis subsp. spizizenii ATCC 6633 (00003*)	50 -100	luxuriant	>=70 %
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50 -100	luxuriant	>=70 %
Staphylococcus aureus subsp. aureus ATCC 6538 (00032*)	50 -100	luxuriant	>=70 %
Escherichia coli ATCC 25922 (00013*)	50 -100	luxuriant	>=70 %
Escherichia coli ATCC 8739 (00012*)	50 -100	luxuriant	>=70 %
Escherichia coli NCTC 9002	50 -100	luxuriant	>=70 %
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	luxuriant	>=70 %
Pseudomonas aeruginosa ATCC 9027 (00026*)	50 -100	luxuriant	>=70 %
Salmonella Abony *NCTC 6017*	50 -100	luxuriant	>=70 %
Micrococcus luteus ATCC 9341	50 -100	luxuriant	>=70 %
Streptococcus pneumoniae ATCC 6305	50 -100	luxuriant	>=70 %

Salmonella Typhimurium *ATCC 14028* (00031*)	50 -100	luxuriant	>=70 %
Clostridium sporogenes ATCC 19404 (00008*)	50 -100	luxuriant	>=70 %
Candida albicans ATCC 10231 (00054*)	50 -100	luxuriant	>=70 %
Candida albicans ATCC 2091 (00055*)	50 -100	luxuriant	>=70 %
Aspergillus brasiliensis ATCC 16404 (00053*)	50 -100	Good-luxuriant	50 -70 %
Aspergillus brasiliensis ATCC 16404 (00053*)	50 -100	Luxuriant	>=70 %
Candida albicans ATCC 10231 (00054*)	50 -100	Good-luxurian	50 -70 %
Candida albicans ATCC 2091 (00055*)	50 -100	Good-luxuriant	50 -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

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
2. Gunn B. A., Ohashi D K., Gaydos C. A., Holt E. S., 1977, J. Clin. Microbiol., 5(6) : 650.
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.

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