microgen
Ready Prepared Media

Technical Information

Soybean Casein Digest Agar Plate w/2% Glycerol (γ-irradiated) (Triple pack)

Product Code: PM 6281GT

Application: Recommended for cultivation of wide variety of microorganisms

Composition**

Ingredients	Gms / Litre
Tryptone #	15.000
Soya peptone	5.000
Sodium chloride	5.000
Agar	15.000
Glycerol	20.000 ml
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Pancreatic digest of casein

Principle & 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. Soyabean Casein Digest Agar does not contains X and V growth factors. It can be conveniently used in determining the requirements of these growth factors by isolates of *Haemophilus* by the addition of X-factor (DD020), V-factor (DD021),and X+V factor discs (DD022) factor to inoculated TSA plates (1).

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.

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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 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 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.

Methodology

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

Quality Control

Appearance
Sterile Soybean Casein Digest Agar Plate w/2% Glycerol (γ-irradiated) (Triple pack) 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)	Observed Lot Value (CFU)	Recovery
Bacillus subtilis subsp.spizizenii ATCC 6633 (00003*)	50-100	35-100	>=70%
Staphylococcus aureussubsp. aureus ATCC 25923 (00034*)	50-100	35-100	>=70%
Staphylococcus aureussubsp. aureus ATCC 6538 (00032*)	50-100	35-100	>=70%
Escherichia coli ATCC25922 (00013*)	50-100	35-100	>=70%
Escherichia coli ATCC 8739 (00012*)	50-100	35-100	>=70%

Escherichia coli ATCC11775 (00090*)	50-100	35-100	>=70%
Escherichia coli NCTC13167 (00179*)	50-100	35-100	>=70%
Escherichia coli NCTC 9002	50-100	35-100	>=70%
Pseudomonas aeruginosaATCC 27853 (00025*)	50-100	35-100	>=70%
Pseudomonas aeruginosaATCC 9027 (00026*)	50-100	35-100	>=70%
Pseudomonas aeruginosaATCC 10145 (00024*)	50-100	35-100	>=70%
Salmonella Abony NCTC 6017 (00029*)	50-100	35-100	>=70%
Micrococcus luteus ATCC9341	50-100	35-100	>=70%
Streptococcus pneumoniaeATCC 6305	50-100	35-100	>=70%
Salmonella Typhimurium ATCC 14028 (00031*)	50-100	35-100	>=70%
Enterococcus faecalis ATCC 29212 (00087*)	50-100	35-100	>=70%
Candida albicans ATCC 10231 (00054*)	50-100	35-100	>=70%
Candida albicans ATCC 2091 (00055*)	50-100	35-100	>=70%
# Aspergillus brasiliensis ATCC 16404 (00053*)	50-100	25-70	50-70%
Clostridium perfringenes 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).

Further Reading

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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Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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