Ready Prepared Media

Technical Information

Tryptone Soya Agar Plate with 1% glycerol

Product Code: PM 1290AGT

Application: Used for cultivation of a wide variety of microorganisms

Composition**

Ingredients	Gms / Litre
Pancreatic digest of casein	15.000
Papaic digest of soyabean meal	5.000
Sodium chloride	5.000
Agar	15.000
Glycerol	10.000

**Formula adjusted, standardized to suit performance parameters

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. Its 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 (1, 2). Tryptone Soya Agar conforms as per USP (1) and is used in microbial limit test and antimicrobial preservative - effective test. Gunn et al (3) used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5% v/v blood. The combination of Pancreatic digest of casein and papaic digest of soyabean meal 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 (4).

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 clinical 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 .

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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 Soyabean Casein Digest Agar in 90mm plates
Colour
Light yellow coloured medium
Quantity of Medium
30ml of medium in 90mm plates
pH
7.10- 7.50
Dose of irradiation
10.00- 25.00
Cultural Response
Recovery rate is considered 100% for bacteria growth on Blood Agar and fungus 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).
Sterility Test
Passes release criteria.
Cultural Response
PM1290AGT: Growth Promotion was carried out in accordance with the harmonized method and growth was observed afteran incubation at 30-35°C for 18-24 hours.

Oragnism	Inoculum	Growth (CFU)	Observed Lot value (CFU)	Recovery	Incubation temperature	Incubation period
Growth promoting						
Bacillus subtilis ATCC 6633	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Staphylococcus aureus ATCC 25923	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Staphylococcus aureus ATCC 6538	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli ATCC25922	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli ATCC 8739	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Escherichia coli NCTC 9002	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Pseudomonas Aeruginosa ATCC 27853	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Pseudomonas Aeruginosa ATCC 9027	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Salmonella Abony NCTC6017	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Micrococcus luteus ATCC9341	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Streptococcus Pneumoniae ATCC 6305	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs

Salmonella Typhimurium ATCC 14028	50-100	luxuriant	35-100	>=70 %	30 -35 °C	18 -24 hrs
Candida albicans ATCC 10231	50-100	luxuriant	35-100	>=70 %	30 -35 °C	<=5 d
Candida albicans ATCC 2091	50-100	luxuriant	35-100	>=70 %	30 -35 °C	<=5 d
Aspergillus Brasiliensis ATCC 16404	50-100	good-luxuriant	25-70	50-70 %	30 -35 °C	<=5 d
Aspergillus brasiliensis ATCC 16404	50-100	luxuriant	35-100	>=70 %	20 -25 °C	<=5 d

Storage and Shelf Life

Store at 15-25°C. Use before expiry date on the label.

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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,4).

Further Reading

1. The United States Pharmacopoeia / National Formulary, 2008, USP 31, The United States Pharmacopoeial Convention Inc.,Rockville, MD.
2. Indian Pharmacopoeia, 2007, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
3. Gunn B. A., Ohashi D K., Gaydos C. A., Holt E. S., 1977, J. Clin. Microbiol., 5(6) : 650.
4. Forbes B. A., Sahm A. S. and Weissfeld D. F., 1998, Bailey and Scotts Diagnostic Microbiology, 10th Ed., Mosby Inc.St. Louis, Mo

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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