

Technical Information

Soyabean Casein Digest Medium (Tryptone Soya Broth)

Product Code: DM 1011

Application: Soyabean Casein Digest Medium is a general purpose medium used for cultivation of a wide variety of microorganisms and recommended for sterility testing of moulds and lower bacteria.

Composition**		
Ingredients	Gms / Litre	
Pancreatic digest of casein	17.000	
Papaic digest of soyabean meal	3.000	
Sodium chloride	5.000	
Dextrose	2.500	
Dibasic potassium phosphate	2.500	
Final pH (at 25°C)	7.3±0.2	

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Soyabean Casein Digest Medium is recommended by various pharmacopeias as a sterility testing and as a microbial limit testing medium ⁽¹⁻³⁾. This medium is a highly nutritious medium used for cultivation of a wide variety of organisms.

The combination of pancreatic digest of casein and papaic digest of soyabean meal makes the medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose and dibasic potassium phosphate serve as the carbohydrate source and the buffer, respectively in the medium. Sodium chloride maintains the osmotic balance of the medium.

Methodology

Suspend 30 grams of powder media in 1000 ml purified/ distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Quality Control

Physical Appearance Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate pH of 3.0% w/v aqueous solution at 25°C .

pH Range:- 7.10-7.50

Cultural Response/Characteristics

DM 1011: Cultural characteristics observed after an incubation at 30-35°C for <= 3 days for Bacterial and at 20-25°C for <= 5days for Fungal.

Stability test

Light yellow coloured clear solution without any precipitation or sedimentation at room temperature for 7 days

Organism

Inoculum (CFU) Incubation temperature

Incubation period

Growth promoting





Dehydrated Culture Media Bases / Media Supplements

Staphylococcus aureus ATCC 6538	50-100	30-35 ⁰ c	18 -24 hrs
Staphylococcus aureus ATCC 25923	50-100	30-35 ⁰ с	18 -24 hrs
Escherichia coli ATCC 8739	50-100	30-35 ⁰ с	18 -24 hrs
Escherichia coli ATCC 25922	50-100	30-35 ⁰ с	18 -24 hrs
Escherichia coli NCTC 9002	50-100	30-35 ⁰ с	18 -24 hrs
Pseudomonas aeruginosa ATCC 9027	50-100	30-35 ⁰ c	18 -24 hrs
Pseudomonas aeruginosa ATCC 27853	50-100	30-35 ⁰ c	18 -24 hrs
Bacillus subtilis ATCC 6633	50-100	30-35 ⁰ с	18 -24 hrs
Micrococcus luteus ATCC 9341	50-100	30-35 ⁰ с	18 -24 hrs
Salmonella Typhimurium ATCC 14028	50-100	30-35 ⁰ с	18 -24 hrs
Salmonella Abony NCTC 6017	50-100	30-35 ⁰ с	18 -24 hrs
Streptococcus pneumoniae ATCC 6305	50-100	30-35 ⁰ с	18 -24 hrs
Sterility Testing- Growth			
promotion+Validation			
Staphylococcus aureus ATCC 6538	50-100	20-25 [°] c	<=3 d
Staphylococcus aureus ATCC 25923	50-100	20-25 [°] c	<=3 d
Escherichia coli ATCC 8739	50-100	20-25 [°] c	<=3 d
Escherichia coli ATCC 25922	50-100	20-25 [°] c	<=3 d
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Streptococcus pneumoniae ATCC 6305	50-100	20-25 [°] c	<=3 d
Candida albi cans ATCC 10231	50-100	20-25 [°] c	<=5 d
Candida albi cans ATCC 2091	50-100	20-25 ⁰ c	<=5 d
Aspergillus brasiliensis ATCC 16404	50-100	20-25 ⁰ c	<=5 d

Storage and Shelf Life-

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Further Reading

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams & Wilkins, Baltimore, M.d.

2. The United States Pharmacopeia, 2008, USP3 1/NF26, The United States Pharmacopeial Convention, Rockville, MD. 3. Indian Pharmacopeia, 2007, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.

4. Forbes B. A., Sahm D. F. and Weissfeld A. S., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed., Mosby, Inc. St. Louis, Mo.

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