Technical Information

Agar Medium C (Sabouraud-Glucose Agar w/antibiotics)

Product Code: DM 2472B

Application: - Sabouraud Glucose Agar w/ antibiotics is used for selective cultivation of yeasts and moulds in accordance with British Pharmacopoeia 2009.

Composition**

Ingredients	Gms / Litre
Glucose monohydrate	40.000
Peptone (meat and casein)	10.000
Agar	15.000
pH after sterilization (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Sabouraud Glucose agar w/ antibiotics is cited as Medium C and used for cultivation of yeasts and moulds by British Pharmacopoeia (1). This medium was described originally by Sabouraud (2) for the cultivation of fungi particularly useful for the fungi associated with skin infections. The medium is used with antibiotics such as tetracycline and benzylpenicillin 3) for the isolation of pathogenic fungi from materials containing large numbers of fungi or bacteria.

Peptone (from meat and casein) supplies nitrogenous compounds. Glucose monohydrate provides an energy source. Tetracycline and benzyl penicillin enhances a wide range of Gram-positive and Gram-negative bacteria, which makes the medium selective for fungi (4). The low pH favours fungal growth and prevents contaminating bacteria from clinical specimens (5).Some pathogenic fungi may produce infective spores, which are easily dispersed in air, so examination should be carried out in safety cabinet.

Methodology

Suspend 61.36 grams of dehydrated culture medium in 995 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. i.e. validated cycle. Aseptically add rehydrated contents of one vial of Tetracycline Selective Supplement (MS 2196). Shake well before pouring into sterile Petri plates.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity
Light amber coloured clear to slightly opalescent gel forms in Petri plates

pH Range
5.40-5.80

Growth Promotion Test
Growth Promotion was carried out in accordance with the harmonized method of BP, after an incubation at 20-25°C with added Tetracycline Selective Supplement (MS 2196) for <=5 days .Recovery rate is considered as 100% for bacteria growth on Soybean Casein Digest Agar and fungus growth on Sabouraud Dextrose Agar

Cultural Response

Organism	Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Incubation temperature	Incubation period
Cultural Response						
Candida albicans ATCC 10231	50 -100	Luxuriant (white colonies)	25 -100	>=50 %	20 -25 °C	<=5 d
Aspergillus brasiliensis ATCC 16404	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Candida albicans ATCC 2091	50 -100	luxuriant	25 -100	>=50 %	20 -25 °C	<=5 d
Saccharomyces cerevisiae ATCC 9763	50 -100	luxuriant	35 -100	>=50 %	20 -25 °C	<=5 d
Escherichia coli ATCC 25922	>=10^3	inhibited	0	0 %	20 -25 °C	<=5 d
Escherichia coli ATCC 8739	>=10^3	inhibited	0	0 %	20 -25 °C	
Escherichia coli NCTC 9002	>=10^3	inhibited	0	0 %	20 -25 °C	
Trichophyton rubrum ATCC 28191	50 -100	good			20 -25 °C	<=5 d
Lactobacillus casei ATCC 334	>=10^3	inhibited	0	0 %	20 -25 °C	

*Key : * - Formely known as Aspergillus niger*

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. British Pharmacopoeia, 2009, The Stationery Office British Pharmacopoeia
2. Sabouraud K., 1892, Ann. Dermatol. Syphilol, 3:1061.
3. Ajello L., 1957, J. Chron. Dis., 5:545.
4. Lorian (Ed.), 1980, Antibiotics In Laboratory Medicine, Williams and Wilkins, Baltimore.
5. Murray, P. R 2005. In Manual of Clinical Microbiology, 7th ed., ASM, Washington, D.C.

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