Bi.G.G.Y Agar Plate (Nickerson Agar Plate)

MP217

Intended Use:

Recommended for detection, selective isolation, differentiation and presumptive identification of *Candida albicans* and *Candida tropicalis.*

Composition**

Ingredients	g / L
Yeast extract	1.000
Glycine	10.000
Dextrose (Glucose)	10.000
Ammonium Bismuth Citrate	5.000
Sodium sulphite	3.000
Agar	16.000
Final pH (at 25°C)	6.8±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

In a study of sulphite reduction by yeasts, the ability of many types of yeast to reduce bismuth sulphite was noted. Growth on an acidic or neutral medium containing bismuth sulphite produced black colonies because of the extra cellular reaction of the bismuth sulphite to bismuth sulphide.

Bi.G.G.Y. Agar (Nickerson Agar) was originally formulated by Nickerson (1,2) and further modified by Haley (3) following study of sulphite reduction. This medium is only a part of the identification process of organisms. Other tests may be required. Bismuth ammonium citrate and sodium sulphite together act as selective agents for *Candida* species suppressing bacterial growth, at the same time indicating substrate reduction to yield bismuth sulphite which helps to presumptively identify *Candida* species. Yeast extract, dextrose and glycine serve as nutrients.Bi.G.G.Y. Agar can be directly inoculated with clinical specimens such as tissues, skin scrapings, hair, nail clipping etc. (4,5). Do not use slants of medium. Precipitate present in molten medium should be uniformly suspended while plating the agar.

This medium may be used for the isolation and presumptive identification of *C.albicans* and *C.tropicalis* from sputum (3) and vaginal smears (6).

Type of specimen

Clinical samples - vaginal swabs, tissues, skin scrapings, hair, nail clipping

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. 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. DO NOT AUTOCLAVE OR OVERHEAT. Overheating will destroy the selective properties.
4. Further biochemical and serological tests must be carried out for further identification.
5. It is recommended to store the plates at 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 Bi.G.G.Y.(Nickerson) Agar in 90mm disposable plates with smooth surface and absence of black particles/cracks/ bubbles

Colour of medium

White to Off white coloured medium

Quantity of medium

25ml of medium in 90 mm disposable plate

pH

6.60-7.00

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colony morphology
Candida albicans ATCC 10231 (00054*)	50-100	luxuriant	>=50%	smooth, circular intensly brown black, no colour diffusion and no sheen
Candida kruisei ATCC 24408	50-100	luxuriant	>=50%	large flat, wrinkled silvery brown, black colonies with brown peripheries, yellow halo
Candida tropicalis ATCC 750	50-100	luxuriant	>=50%	smooth discrete, dark brown with black centres, diffused blackening after 72 hours, sheen, slight mycelial fringe
Escherichia coli ATCC 25922 (00013*)	>=10^3	inhibited	0%	
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	>=10^3	inhibited	0%	
Candida pseudotropicalis	50-100	Good	40-50%	Dark reddish brown, glistening colony

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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Reference

1. Nickerson W.J., 1947, The Chronica, Botanica Co.
2. Nickerson W.J., 1953, J. Inf. Dis., 93:43.
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4. Lennette, Balows, Hausler and Shadomy (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., A.S.M. Washington, D.C.
5. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore..
6. Mendel E.B., Naberman S. and Hall D. K., 1960, Obstel and Gynec.16, 180-184.
7. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
8. 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.

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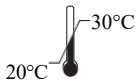
IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE Marking

Do not use if package is damaged

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