

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

Bi.G.G.Y. Agar designed for detection, selective isolation, differentiation and presumptive identification of *Candida albicans* and *Candida tropicalis*.

REF: BS.1/NZ01.100.0100	100 Gram	REF: BS.1/NZ01.250.0250	250 Gram
REF: BS.1/NZ01.500.0500	500 Gram		

contamination.

S61: avoid release in environment.

PRINCIPLE AND INTERPERTATION :

In investigations concerning sulphite reduction by yeasts, it was observed that several yeast species are capable of reducing bismuth sulphite. Growth on acidic or neutral media containing bismuth sulphite results in the formation of black colonies due to an extracellular reaction that converts bismuth sulphite into bismuth sulphide. BiGGY Agar (Nickerson Agar) was initially formulated by Nickerson (1,2) and was subsequently modified by Haley (3) following further studies on sulphite reduction. This medium represents only one component of the organism identification process, and additional confirmatory tests may be necessary. Bismuth ammonium citrate and sodium sulphite act together as selective agents for *Candida* species by inhibiting bacterial growth, while simultaneously indicating substrate reduction to produce bismuth sulphite, which assists in the presumptive identification of *Candida* species. Yeast extract, dextrose, and glycine serve as nutritional components. BiGGY Agar may be directly inoculated with clinical specimens such as tissues, skin scrapings, hair, and nail clippings, etc. (4,5). Slants of the medium should not be used. Any precipitate present in the molten medium should be uniformly dispersed during agar plating. This medium may be used for the isolation and presumptive identification of *C. albicans* and *C. tropicalis* from sputum (3) and vaginal smears (6).

MEDIA COMPOSITION

Item	Formula per liter of medium
Glycine	10.00 gm
Dextrose (Glucose)	10.00 gm
Yeast extract	1.00 gm
Ammonium Bismuth Citrate	5.00 gm
Sodium sulphite	3.00 gm
Agar	16.00 gm

Final pH (at 25°C) 6.8 ± 0.2 ** Formula adjusted, standardized to suit performance parameters.

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental

STORAGE AND STABILITY

BioScien Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

PREPARATION

Suspend 45.0 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Overheating will destroy the selective properties. Disperse the flocculant precipitate formed by swirling prior to dispensing into Petri plates.

Deterioration

The color of **BioScien** BiGGY Agar (Nickerson Medium) is a cream to yellow, homogeneous, free-flowing powder that, after preparation, yields a light amber, opalescent gel with a dispersible flocculant precipitate

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile petri dishes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

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

Organisms (ATCC)	Growth	Colony morphology
<i>Candida albicans</i> ATCC 10231	luxuriant	smooth, circular intensely brown black, no colour diffusion and no sheen
<i>Candida kruisei</i> ATCC 24408	luxuriant	large flat, wrinkled silvery brown, black colonies with brown peripheries, yellow halo
<i>Candida tropicalis</i> ATCC 750	luxuriant	smooth discrete, dark brown with black centres, diffused

		blackening after 72 hours, sheen, slight mycelial fringe
Escherichia coli ATCC 25922	inhibited	
Staphylococcus aureus subsp. aureus ATCC 25923	inhibited	

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact **BioScien** technical support.

REFERENCE

1. Nickerson W.J., 1947, The Chronica, Botanica Co.
2. Nickerson W.J., 1953, J. Inf. Dis., 93:43.3. Haley L.D., 1959, Trans. N.Y. Acad. Sci., 21(8):708.
3. Lennette, Balows, Hausler and Shadomy (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., A.S.M. Washington, D.C.
4. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore..
5. Mendel E.B., Naberman S. and Hall D. K., 1960, Obstet and Gynec. 16, 180-184.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
7. 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.

SYMBOLS IN PRODUCT LABELLING			
	For in-vitro diagnostic use		Number of <n> test in the pack
	Batch Code/Lot number		Caution
	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		