BiGGY AGAR

INTENDED USE
Remel BiGGY Agar is a solid medium recommended for use in qualitative procedures for selective isolation and presumptive identification of *Candida* species.

SUMMARY AND EXPLANATION
Nickerson described Bismuth Sulfite Glucose Glycine Yeast (BiGGY) Agar in 1953 following a study of sulfite reduction by species of *Candida*.[1] According to Nickerson, BiGGY Agar may be used for differentiation of *Candida* spp. based on growth patterns and pigmentation of colonies.

PRINCIPLE
Heat processing initiates a reaction between bismuth ammonium citrate and sodium sulfite to produce bismuth sulfite. Many strains of yeast, including *Candida* spp., reduce bismuth sulfite. In the process, appreciable amounts of sulfide are produced and combine with the bismuth to precipitate or impart a brown-black color to the colonies and on the medium. Bismuth sulfite also serves to suppress bacterial growth. Yeast extract and glucose provide essential nutrients to stimulate growth.

REAGENTS (CLASSICAL FORMULA)*

Dextrose	10.0	g	Bismuth Ammonium Citrate	2.0	g
Glycine	10.0	g	Yeast Extract	1.0	g
Sodium Sulfite	6.0	g	Agar	20.0	g
			Demineralized Water	1000.0	ml

pH 6.8 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE
1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory.
2. If material is being cultured directly from a swab, roll the swab over a small area of the agar surface and streak for isolation.
3. Incubate aerobically at 25-30°C for up to 5 days.
4. Examine plate for typical colony morphology and color. On BiGGY Agar, colonies of *Candida* spp. are brown to black in color and may produce a colored zone in the agar around the colony.

QUALITY CONTROL
All lot numbers of BiGGY Agar have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL	INCUBATION	RESULTS
Candida albicans ATCC® 10231	Aerobic, up to 72 h @ 25-30°C	Growth, dark brown-black colonies
Escherichia coli ATCC® 25922	Aerobic, up to 72 h @ 25-30°C	Inhibition (partial to complete)

LIMITATIONS
1. The pH of BiGGY Agar is adjusted to 6.8 ± 0.2 during manufacturing. A pH shift may occur on storage and has not been found to effect performance of the medium.[2]
2. Pigmented bacteria and yeast-like fungi may grow on BiGGY Agar. Such isolates can be differentiated from yeasts based on microscopic examination. Dermatophytes and molds seldom grow on BiGGY Agar and are easily recognized by the development of aerial mycelia.[2]
3. This test is only part of the overall scheme for identification of *Candida* spp. A microscopic examination and additional biochemical testing may be required for definitive identification. Consult appropriate references for further instructions.[3,4]

BIBLIOGRAPHY

1. Nickerson, W.J. 1953. J. Infect. Dis. 93:43-56.
2. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams & Wilkins, Baltimore, MD.
3. Isenberg, H.D. 2004. Clinical Microbiology Procedures Handbook. 2nd ed., Vol. 2. ASM Press, Washington, D.C.
4. Murray, P.R., E.J. Baron, J.H. Jorgensen, M.L. Landry, and M.A. Pfaller. 2007. Manual of Clinical Microbiology. 9th ed. ASM Press, Washington, D.C.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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