73608 BiGGY Agar
(Bismuth Glycine Glucose Yeast Agar; Candida Elective Agar acc. to Nickerson; Nickerson Agar)

BiGGY Agar (Nickerson Agar) is used for detection, selective isolation, differentiation and presumptive identification of *Candida albicans* and *Candida tropicalis*.

Composition:

Ingredients	Grams/Litre
Yeast extract	1.0
Glycine	10.0
Dextrose	10.0
Bismuth ammonium citrate	5.0
Sodium sulphite	3.0
Agar	16.0
Final pH 6.8 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Yellow coloured, homogeneous, free flowing powder.
Colour and Clarity: Very light amber colourled, slightly opalescent gel forms in petri plates.

Directions:
Suspend 45 g in 1 litre distilled water. Boil gently to dissolve the medium completely. DO NOT AUTOCLAVE. Overheating will destroy the selective properties. Disperse the flocculant precipitate formed by swirling prior to dispensing into plates. Do not use slantes!

Principle and Interpretation:
Biggy Agar is a selective medium originally developed by Nickerson (1,2) and modified by Haley (3). It is used for isolation and presumptive identification of *Candida* species by their ability to reduce sulphite to sulphide giving a brown to black colour. Bismuth sulphite and bismuth ammonium citrate suppress bacterial growth. Yeast extract acts as a source of carbon, nitrogen, vitamines and other essential growth nutrients. The glycine is stimulating the growth, while dextrose is the fermentable carbohydrate.
The medium can be directly inoculated with clinical specimens such as skins, tissues and scrapings. This medium is only a part of the identification. Other tests may be required.

Cultural characteristics after 18-48 hours at 30°C

Organisms (ATCC)	Growth	Colony Morphology
Candida albicans (10231)	+++	Smooth circular intensely brown black, no colour diffusion, no sheen
Candida tropicalis (750)	+++	Smooth discrete dark brown with black centers, diffuse blackening after 72 hours, sheen, slight mycelial fringe.
Candida kruisii (24408)	+++	Large, flat, wrinkled silvery brown, black colonies with brown peripheries, yellow halo
Escherichia coli (25922)	-	-
Staphylococcus aureus (25923)	-	-

References:
1. W. Nickerson, Biology of pathogenic fungi, Chronica Botanica Company (1947)
2. W. Nickerson, Reduction of inorganic substances by yeasts. Extracellular reduction of sulfide by species of Candida., J. Infec. Dis. 93, 43 (1953)
3. L.D. Haley, Trans. N. Y. Academy Sci. Series 11 (1959)
4. F.S. Barr, G.F. Collins, A rapid method for the isolation and identification of Candida. South Med. J. 59, 694 (1966)
5. E.H. Lennette, A. Ballows, W.J.Jr. Hausler, H.J. Shadomy, Manual of Clinical Microbiology. 4th ed. Washington D.C.: American society for Microbiology (1985)
6. Jean F. Mac Faddin, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol.1, Baltimore, MD. Williams & Wilkins (1985)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.