

Corn Meal Agar

Is used for chlamydospore production by *Candida albicans* and the maintenance of fungal stock cultures.

REF: BS.1/CN01.100.0100
 REF: BS.1/CN01.500.0500

100 Gram
 500 Gram

REF: BS.1/CN01.250.0250

250 Gram

CLINICAL SIGNIFICANCE

Chlamydospore production is an accepted criterion for the identification of *Candida* species. Corn Meal Agar is a well established mycological medium used for the cultivation of fungi and to study chlamydospores production of *Candida* species (1). Corn Meal Agar is a general purpose medium used for the cultivation of fungi and for the study of *Candida* species for chlamydospore production. Pollack and Benham (1) have described the usefulness of this medium for studying the morphology of *Candida*. Walker and Huppert (2) modified this medium by adding polysorbate 80, which then stimulated faster and plenty of chlamydospore formation of *Candida* species.

METHOD PRINCIPLE

This is a very simple formulation containing only cornmeal infusion and agar. However this infusion has enough nutrients to enhance the growth of fungi. Polysorbate 80 is a mixture of oleic esters, which activates the production of chlamydospore by *Candida albicans*, *Candida stellatoidea* and *Candida tropicalis* (3). Some *Candida* species lose their ability of chlamydospore formation by repeated sub culturing. Pick a suspected colony from Sabouraud Dextrose Agar (M063) using a straight wire, and make a deep cut in the Corn Meal Agar plate. Repeat for each colony. Place a flamed sterile coverslip over the line of inoculum. After incubation for 24-48 hours at 25-30°C, the streaks are examined microscopically, through the coverslip, using low and high power objectives. *C. albicans* produces mycelium bearing ball-like clusters of budding cells and characteristics thick walled round chlamydospores (4).

MEDIA COMPOSITION

Item	Formula per liter of medium
- Corn Meal, Infusion from	50.00 gm.
- Agar	15.00 gm.

Final pH 6.0 ± 0.2 at 25°C

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 Contamination.

S61: avoid release in environment.

For further information, refer to the Corn Meal Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Corn Meal Agar dehydrated media are stable until expiration date stated on label when properly stored 10-30°C. The prepared medium should be stored at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a 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.

MEDIA PREPARATION

- Suspend 17 grams in 1000 ml distilled water.
- Adjust pH to 6.0 ± 0.2 at 25°C
- Heat to boiling to dissolve the medium completely.
- If desired add 1% polysorbate 80.
- Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Deterioration

The color of **BioScien** Corn Meal Agar is Cream to yellow coarse free flowing powder. If there are any physical changes, discard the medium. prepared medium is Light amber coloured, opalescent gel forms in Petri plates. media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), and contaminations.

SPECIMEN COLLECTION AND PRESERVATION

Food and dairy samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile cups
- Sterile plates
- Sterile loops
- Incubator

PERFORMANCE CHARACTERISTICS

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

Cultural characteristics observed after an incubation at 23-27°C for up to 4 days

Test Organisms	Growth	Chlamydospores
<i>Aspergillus brasiliensis</i> ATCC 16404	Good - Luxuriant	Negative
<i>Candida albicans</i> ATCC 10231	Good - Luxuriant	Positive
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good - Luxuriant	Negative
<i>Saccharomyces uvarum</i> ATCC 28098	Good - Luxuriant	Negative

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

REFERENCES

1. Pollack and Benham, 1960, J. Lab. Clin. Med., 50:313.
2. Walker and Huppert, 1960, Tech. Bull. Reg. Med. Technol., 30:10.
3. Cooper and Silvo-Hunter, 1985, Manual of Clinical Microbiology, Lennette, Balows, Hausler and Shadomy (Eds.), 4th ed., ASM, Washington, D.C. 11th Edition. Vol. 1.
4. Conant N. F., Smith D. T., Baker R. D., Callaway J. L. and Martin D. S., 1971, Manual of Clinical Mycology, 3rd Ed.,
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
6. 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.
7. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C USA
8. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

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