

PRODUCT INFORMATION AND QUALITY CONTROL SHEET

MALT EXTRACT AGAR WITH 0.01% CHLORAMPHENICOL CONTACT PLATE

I. INTENDED USE

Contact plates are used for the detection and enumeration of microorganisms present on surfaces of sanitary importance. Malt Extract Agar is used for the isolation, cultivation and enumeration of yeasts and molds. The media is rendered selective for fungi by the addition of Chloramphenicol.

II. SUMMARY AND EXPLANATION

Environmental sampling plates are manufactured so that the agar medium can be filled to produce a meniscus or dome-shaped surface that can be pressed onto a surface for sampling its microbial burden. After touching the surface to be sampled with the medium, the dish is covered with the lid and incubated at an appropriate temperature. The presence or absence of microorganisms is determined by the appearance of colonies on the surface of the agar medium.

Malt media for yeasts and molds has been used for many years¹. In 1919, Reddish² prepared a satisfactory substitute for beer wort from malt extract. Fulmer and Grimes³ employed a malt agar for their studies of the growth of yeasts on synthetic media. Reddish's medium was used by Thom and Church⁴ in their studies of the aspergilli. The incorporation of Chloramphenicol is a modification designed to increase bacterial inhibition.

III. PRINCIPLES OF THE PROCEDURE

The acid pH and the nutrient content of the medium allows the growth of yeasts and molds to flourish, and the antimicrobial agent Chloramphenicol inhibits the growth of bacteria. The bottom of the plate has a grid to aid in counting colonies.

IV. TYPICAL FORMULA AND APPEARANCE

Appearance = light amber, slightly opalescent
(Approximate formula* per liter of processed water)

Malt Extract powdered	20.0 g
Casitone	1.0
Glucose	20.0
Agar	20.0
Chloramphenicol	0.1

*adjusted and/or supplemented to meet performance criteria.
Final pH: 4.7± 0.2 @ 25°C

V. PRECAUTIONS

This product is for IN VITRO diagnostic use only. Strict adherence to aseptic techniques and established precautions against microbiological hazards should be followed throughout the procedure. Carefully dispose of all items, which contact specimens.

VI. STORAGE/SHELF LIFE

Plated media should be stored at 2-8°C (36-46°F), media side up, in the unopened or resealed package protected from light. DO NOT FREEZE OR EXPOSE TO HIGH TEMPERATURES. Allow unopened plates to warm to room temperature prior to inoculation. Prior to and during inoculation procedures, plates should be handled in a manner that minimizes product exposure to the environment. Product that has exceeded the assigned expiration date noted on the label should not be used. Do not use plates that exhibit evidence of drying, cracking, discoloration, microbial contamination or any other signs of deterioration. The presence of excessive condensate may indicate plates that have been damaged by exposure to temperature extremes.

VII. SPECIMEN COLLECTION

This product is not for use directly with clinical specimens. Proper specimen collection techniques must be followed to

ensure the most accurate culture results. Plates should be incubated promptly after inoculation.

VIII. MATERIALS PROVIDED

Malt Extract Agar w/0.01% Chloramphenicol Contact Plates (10/pkg)

IX. MATERIALS REQUIRED BUT NOT PROVIDED

Ancillary culture media, reagents and laboratory equipment as required.

X. PROCEDURE

Carefully remove a single plate from the bag and remove lid. Invert plate and press agar firmly on surface to be tested. Note: Use firm but equal pressure on plate to ensure uniform sampling. Incubate the inoculated plates at 25-37°C, agar side up for up to one week. Examine cultures at least every other day for fungal growth.

XI. EXPECTED RESULTS

NCCLS CONTROL ORGANISMS (ATCC STRAINS)

<i>Candida albicans</i> (ATCC 10231)	Growth
<i>Trichophyton mentagrophytes</i> (ATCC 9533)	Growth
<i>Aspergillus niger</i> (16404)	Growth
<i>Escherichia coli</i> (25922)	Inhibition (partial to complete)

XII. LABORATORY RESULTS

Identification of fungal organisms may be made on the basis of typical gross colony morphology, microscopic characteristics, and physiologic and pathologic characteristics. Additional test procedures should be used to confirm findings.

XIII. LIMITATIONS

The ability to detect yeasts, molds and fungi by culture techniques can be affected by the following factors: improper specimen collection, storage and inoculation, improper culture incubation temperatures and atmospheres, improper length of culture incubation, and improper storage and handling of culture media.

XIV. REFERENCES

1. Difco Manual. 9th Ed., 1953, pp. 65-67.
2. Abs. Bact., 3:6, 1919.
3. J. Bact., 8: 586, 1923.
4. Thom and Church: The Aspergilli, 1926.

USER QUALITY ASSURANCE/ QUALITY CONTROL PROCEDURES AND INFORMATION

HealthLink recommends that the following quality assurance and quality control procedures be performed on each batch of product.

I. QUALITY ASSURANCE

The following quality assurance procedures must be performed to assure the product will perform according to its intended use within the assigned expiry date:

1. Daily, document that product storage refrigerator maintains temperature within 2-8°C.
2. Daily, document that laboratory incubator maintains temperature within the recommended range: 22-37°C.

II. QUALITY CONTROL

The following incoming inspection procedures must be performed for each batch (batch = same lot, same shipment) of culture media received in the laboratory:

Inspect plates according to instructions contained in the Section VI "STORAGE/SHELF LIFE"

Note: Notify Technical Service immediately if media does not meet the inspection criteria.

TECHNICAL SERVICE

HealthLink provides a toll free technical service line (1-800-638-2625) to assist with product usage. To have technical questions answered; please call between the hours of 9:00 am to 5:00 pm EST.

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April, 2002

Product No. 1665 Rev. No. New