



HiCrome® OGYE Agar Base

M1467

Intended use

Recommended for isolation and enumeration of yeasts and moulds from milk and milk products by chromogenic method.

Composition**

Ingredients	g/ L
Yeast extract	4.000
Dextrose (Glucose)	20.000
Chromogenic mixture	1.100
Agar	12.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 18.55 gram in 500 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add reconstituted contents of one vial of OxyT Selective Supplement (FD032). Mix well and pour into sterile Petri plates.

Principle And Interpretation

OGYE Agar Media were originally formulated by Mossel et al (1,2) for the isolation and enumeration of yeasts and moulds from foodstuffs. Mossel et al (3) further added Oxytetracycline as a selective agent and found that the use of Oxytetracycline in a medium with a neutral pH gives increased counts of yeasts and moulds as compared to media having a low pH to suppress bacterial growth. HiCrome® OGYE Agar is a selective and differential medium, which facilitates rapid isolation of yeasts and moulds from milk and milk products.

Yeast extract provides essential growth nutrients. Dextrose (Glucose) acts as carbon and energy source. The low pH helps to reduce the bacterial flora. Oxytetracycline makes the medium, more selective by inhibiting the growth of Lactobacilli encountered in milk and milk-products at low pH. Incorporation of chromogenic compounds into the growth medium helps in identification of yeasts and moulds isolates directly on primary isolation. *Aspergillus brasiliensis* appear as light blue coloured colonies with black spores due to presence of chromogenic mixture, *C.albicans* shows green coloured colonies and *Saccharomyces cerevisiae* gives colourless colonies.

Type of specimen

Dairy samples: milk and milk products

Specimen Collection and Handling:

For dairy samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (4,5). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets

Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Slight colour variation may be observed depending upon the utilization of the substrate by the organism.

Performance and Evaluation

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

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.2% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.71 % w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed with added OxyT Selective Supplement(FD032), after an incubation at 25-30°C for 2-3 days.

Organism	Inoculum (CFU)	Growth	Colour of Colony	Recovery
# <i>Aspergillus brasiliensis</i> ATCC 16404 (00053*)	50-100	luxuriant	light blue with black spores	
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	luxuriant	green	≥50%
<i>Escherichia coli</i> ATCC 25922 (00013*)	≥10 ⁴	inhibited		0%
<i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*)	50-100	luxuriant	colourless	≥50%

Key ; (*) Corresponding WDCM numbers

Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store between 15-25°C in a tightly closed container and the prepared medium 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 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.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (6,7).

Reference

1. Mossel D.A.A. et al, 1970, J. Appl. Bact., 33:454.
2. Mossel D.A.A., Harrewijn G.A. and Elzebrock J.M., 1973, UNICEF.
3. Mossel D.A.A., Visser M. and Mengerink W.H.J., 1962, Lab. Prac. 11:109.
4. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
5. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
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.

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Disclaimer :

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