



Oxytetra Glucose Yeast Agar Base w/ Biotin

M1136

Oxytetra Glucose Yeast Agar Base w/ Biotin is recommended for isolation and enumeration of yeasts and / or moulds from foodstuffs.

Composition**

Ingredients	Gms / Litre
Yeast extract	5.000
Dextrose	20.000
Biotin	0.0001
Agar	12.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 18.5 grams in 500 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add reconstituted contents of one vial of Oxytetra Selective Supplement (FD032). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Oxytetra Glucose Yeast Agar Base w/ Biotin 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.

Yeast extract provides essential growth nutrients. Dextrose acts as carbon and energy source. Oxytetracycline makes the medium more selective by inhibiting the growth of *Lactobacilli* encountered in milk and milk-products at low pH. Biotin is used as a vital growth factor for lactose utilizing yeast.

The choice of a suitable media for enumeration of yeasts and moulds greatly depends on the nature of food stuffs to be tested and the organisms that grow on them (4). These media remain bacteriostatic when inoculated with not greater than 1 ml of a 10-1 food dilution and incubation at 22°C (2). The number of yeasts or moulds is calculated per one gram or 1 ml of sample under investigation by multiplying the number of colonies with the dilution factor. Lactic acid bacteria are inhibited on this medium.

Quality Control

Appearance

Cream to light 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 3.7% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

M1136: Cultural characteristics observed with added 1 vial of Oxytetra Selective Supplement(FD032), after an incubation at 25-30°C after 2-5 days.

Organism	Inoculum (CFU)	Growth	Recovery
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<i>*Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant	>=50%
<i>Escherichia coli</i> ATCC 25922	>=10 ³	inhibited	0%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good-luxuriant	>=50%
<i>Saccharomyces uvarum</i> ATCC 9080	50-100	good-luxuriant	>=50%

*Key: Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

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. II:109.
4. Mossel D.A.A., Vega Clara L. and Put H.M.C., 1975, J. Appl. Bact., 39:15.

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