



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

MY 40G Agar

Product Code: DM 2168

Application: - Malt Extract Yeast Extract 40% Glucose (MY 40G) Agar is used for the isolation and cultivation of osmotolerant microorganisms from foods.

Composition**

Ingredients	Gms / Litre
Glucose	400.000
Malt extract	12.000
Yeast extract	3.000
Agar	12.000
Final pH (25°C)	5.5±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Osmophilic yeasts usually are the cause of spoilage of high-sugar containing foods, including jams, honey, concentrated fruit juices, chocolate candy with soft centres etc. ^(1, 2) Organisms that can grow in high concentrations of organic solute, particularly sugars, are called osmophiles. Yeast are the most common osmophilic microorganisms encountered in non-ionic environments of high osmolarity, such as foods containing high concentrations of sugar. Osmophilic Glucose Agar formulated by Pivnick and Gabis ⁽³⁾ is prepared as per APHA ⁽⁴⁾ and is used for the detection and isolation of osmophilic microorganisms like yeasts, which are most commonly found in the food industry.

MY in MY-40G Agar stands for malt extract and yeast extract and 40 for the 40% of glucose in the medium, which meets the above requirements.

The medium contains malt extract and yeast extract which supply the nitrogenous nutrients, amino acids, vitamins, trace ingredients to the osmophilic yeasts. 40% glucose in the medium satisfies the nutritional need of these yeasts.

Methodology

Suspend 42.7 grams of powder media in 100 ml distilled water. Shake well & heat to dissolve the medium completely. Steam the medium for 30 minutes. DO NOT AUTOCLAVE. Autoclaving is not required due to reduced water activity (Q w).

Quality Control

Physical Appearance

Off-white to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.2% Agar gel

Colour and Clarity of prepared medium

Medium amber coloured slightly opalescent gel forms in Petri plates

Reaction

Reaction of 42.7% w/v aqueous solution at 25°C, pH:- 5.5±0.2

pH range 5.30-5.70





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Cultural Response/ characteristics

DM 2168: Cultural characteristics observed after an incubation at 25-30°C for up to one week.

Organism

Saccharomyces rouxii ATCC 28253

Growth

luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Rose A. H. and Harrison J. S., (Eds.), 1970, The Yeasts, Vol. 3, Academic Press, New York.
2. Tilbury R. H., 1980, "Biology and Activities of Yeasts", Skinner and others (Ed.), Academic Press, London.
3. Pivnick H. and Gabis D. A., 1984, In Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., American Public Health Association, Washington, D.C.
4. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

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