MY 40G (i23487)

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

Industry: Food

Principles & Uses

Osmophilic yeasts, the culprits behind the spoilage of sugary delights like jams, honey, and soft-centered chocolates, thrive in environments rich in organic solutes, especially sugars. These sugar-tolerant microorganisms, known as osmophiles, are frequently *yeast* species found in high-osmolarity, non-ionic conditions common in sugar-laden foods. To identify and isolate these osmophilic microorganisms, commonly found in the food industry, Osmophilic Glucose Agar, developed by Pivnick and Gabis and prepared in accordance with APHA standards, is employed.

The "MY" in MY-40G Agar stands for malt extract and yeast extract, while "40" signifies the 40% glucose content in the medium. These components provide essential nitrogenous nutrients, amino acids, vitamins, and trace elements required by osmophilic yeasts, meeting their nutritional needs for robust growth in high-sugar environments.

Composition (gr/L)

Malt Extract 12, Glucose 400, Yeast extract 3, Agar 15.
Final pH at 25°C 5.5 ± 0.2

Preparation from dehydrated Powder

Suspend 43 grams in 100ml distilled water. Heat to boiling to dissolve the medium completely. Adjust pH to 5.5 ± 0.2 using HCl solution. Steam the medium for 30 minutes. **DO NOT AUTOCLAVE**. Autoclaving is not required due to reduced water activity.

Quality Control

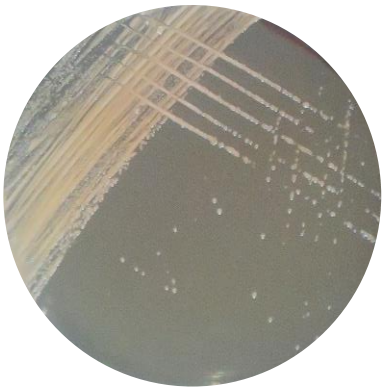
Dehydrated Appearance: Off-white to yellow homogeneous powder.
Prepared Appearance: Medium amber colored slightly opalescent gel forms in petri plates.
Reaction of 43% Solution at 25°C: pH 5.5 ± 0.2

Cultural Response

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

Organism (ATCC*)	Recovery
Saccharomyces rouxii (28253)	Luxuriant

*ATCC is a registered trade mark of the American Type Culture Collection.



Saccharomyces rouxii. The background has been darkened to enhance the visibility of colonies.

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.