

Yeast Mold Agar (i23205)

For cultivating yeasts, molds and other aciduric microorganisms.

Industry: Food

Principles & Uses

Yeast Malt Agar, following Wickerham's formulation, is designed for the isolation and cultivation of yeasts, molds, and aciduric microorganisms. Fungistatic agents like sodium propionate and diphenyl are incorporated to hinder mold growth, enabling the enumeration of yeasts in mixed populations. To enrich yeasts, Wickerham recommends Yeast Malt Broth with a layer of sterile paraffin oil, subsequently streaked on YM Agar for isolated colonies. Acidified YM Broth on a shaker isolates both fermentative and oxidative strains, favoring yeast development while preventing mold sporulation.

Peptic digest of animal tissue and yeast extract in YM Agar provide essential nutrients, while malt extract serves as the carbohydrate source.

The high dextrose concentration and acidic pH make it selectively conducive to fungi. Bacteriological agar solidifies the medium for microbial growth.

Composition (gr/L)

Peptone 5 g, Yeast Extract 3 g, Malt Extract 3 g, Dextrose 10 g, Agar 20 g.

Final pH at 25°C 6.2 ± 0.2

Preparation from dehydrated Powder

Suspend 41 g in 1 liter of distilled water and mix thoroughly. Autoclave at 121°C for 15 minutes. To increase selectivity, acidify the medium to pH 3.0 to 4.0 (by adding sterile 10% HCl, tartaric acid or 10% citric acid) or add antibiotics (penicillin 20 units per mL final concentration or streptomycin 40 µg per mL final concentration) using aseptic technique.

Quality Control

Dehydrated Appearance: Beige, free-flowing, homogeneous.

Prepared Appearance: Light to medium amber, slightly opalescent.

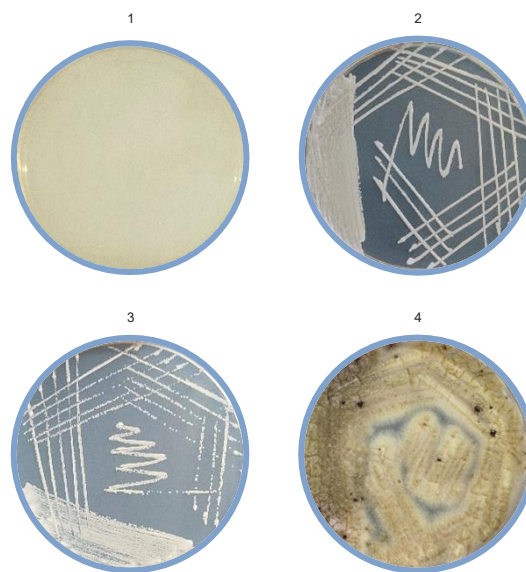
Reaction of 4.1% Solution at 25°C: pH 6.2 ± 0.2

Cultural Response

Prepare two sets of agar plates (one set pH 6.2, one set adjusted to pH 3.0 - 4.0) per label directions. Inoculate and incubate at 30 ± 2°C for 18 - 72 hours.

Organism (ATCC*)	Recovery pH 3.0-4.0	Recovery pH 6.2
<i>Aspergillus brasiliensis</i> (niger) (16404)	Good	Good
<i>Candida albicans</i> (10231)	Good	Good
<i>Escherichia coli</i> (25922)	Marked to complete inhibition	Good
<i>Lactobacillus rhamnosus</i> (7469)	Poor to fair	Good
<i>Saccharomyces cerevisiae</i> (9763)	Good	Good

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



The pH of the medium is adjusted to 6.2.

1: Prepared Culture Media. 2: *Candida albicans*.

3: *Saccharomyces cerevisiae*. 4: *Aspergillus niger*.

Storage

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