

## Malt Extract Agar (i23107)

For the detection, isolation and enumeration of yeasts and molds. Bacteria may be suppressed by the addition of lactic acid.

Industry: Food

## Principles & Uses

Fungal infection diagnosis in laboratories relies mainly on direct methods, particularly the use of malt and malt extracts for yeast and mold cultivation. Reddish initially described a culture medium made from malt extract as a suitable alternative to wort. This Malt Extract Medium, similar to Galloway and Burgess's formula, is employed for detecting, isolating, and enumerating yeasts and molds.

Malt extract fosters an acidic environment with nutrients conducive to yeast and mold growth. Peptone encourages robust growth with characteristic morphology and pigmentation. Adjusting the medium's acidity with the addition of 10% lactic acid is advisable for accurate mycological counts and inhibiting bacterial growth.

## Composition (gr/L)

Malt extract 30, Peptone from soy 3, Agar 15.

Final pH at 25°C 5.6 ± 0.2

## Preparation from dehydrated Powder

Dissolve 48 g of the powder in 1 Liter of purified water. Sterilise by autoclaving at 115°C for 10 minutes. If it is desired to adjust the medium to pH 3.5, cool to 55°C and add approximately 2-3ml of 10% Lactic Acid to 100ml Malt Extract Agar. Once acidified with lactic acid, the medium should not be re-heated.

## Quality Control

Dehydrated Appearance: Light tan, free-flowing, homogeneous.

Prepared Appearance: Light to medium amber, very slightly to slightly opalescent.

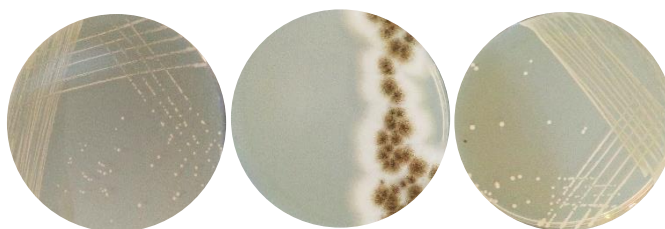
Reaction of 4.8% Solution at 25°C: pH 5.6 ± 0.2

## Cultural Response

Inoculate and incubate with microorganisms below, was incubated at 30 ± 2°C for 18-48 hours.

Organism (ATCC*)	Recovery
<i>Candida albicans</i> (10231)	Good
<i>Aspergillus brasiliensis</i> ( <i>niger</i> ) (16404)	Good
<i>Saccharomyces cerevisiae</i> (9763)	Good

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



*S. cerevisiae* (left), *A. niger* (middle), *C. albicans* (right). The background has been darkened for improved colony visibility.

## Storage

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