

PRODUCT INFORMATION

LMDA (Lee's Multi-Differential Agar)

Cat. No. L12-126

DESCRIPTION

LMDA (Lee's Multi-Differential Agar) is a differential solid medium for the detection and enumeration of a variety of brewery bacteria and yeast.

FORMULA (g/L)

Dextrose	10.0 g	Bromocresol Green Free Acid	0.022 g
Citric Acid	1.1 g	Calcium Pantothenate	2.0 g
Monopotassium Phosphate	0.5 g	Manganese Sulfate	0.01 g
Sodium Chloride	0.01 g	Ferrous Sulfate	0.01 g
Tomato Juice Broth	20.0 g	Tween 80	0.5 g
Yeast Extract	10.0 g	Calcium Carbonate	5.0 g
Peptonized Milk	20.0 g	Dipotassium Phosphate	0.5 g
Magnesium Sulfate	0.2 g	Agar	15.0 g

Final pH: 5.5 ± 0.2 at 25 °C

*Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 84.8 grams of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring and boil to dissolve completely. Additionally, 0.007g of cycloheximide can be added to prevent the growth of yeast. Autoclave at 121°C for 15 minutes. Cool medium to approximately 45-50°C in a water bath. Gently and thoroughly swirl the medium, without agitation, in order to uniformly suspend the calcium carbonate precipitate. Dispense the medium into sterile petri dishes. Immediate use after preparation is recommended to prevent pH changes.

PREPARATION

Dilute brewing samples (wort, beer, or water) as necessary to achieve an inoculum level of 25-60 colonies per spread plate. Pipette 0.1 to 0.2 mL aliquots of the sample and/or its

dilutions onto prepared LMDA plates. Spread with sterile rod or loops. Incubate at 30°C in an anaerobic environment to detect beer spoilage organisms. If detection of yeast and acetic acid bacteria is desired, incubate aerobically at 30°C. Examine plates after 4-7 days for growth and colony morphological characteristics.

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogenous and free flowing.
2. Visually the prepared medium is medium to dark green and opaque, with light to heavy white precipitate.
3. Expected cultural response after 4-7 days at 30 °C under anaerobic conditions.

ORGANISM	RESULT
<i>Pediococcus damnosus</i> ATCC 29358	Good Growth – Small green colonies
<i>Pediococcus acidilactici</i> ATCC 25742	Good Growth – Green, gray colonies
<i>Lactobacillus fermentum</i> ATCC 9338	Good Growth – Light green colonies w/ green center
<i>Proteus vulgaris</i> ATCC 13315	Inhibited

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.