

## Technical Information

### Acetobacter Agar (Glucose)

**Product Code: DM 1238**

**Application:** - Acetobacter Agar (Glucose) is used as a maintenance media for glucose positive *Acetobacter* species.

#### Composition\*\*

Ingredients	Gms / Litre
Yeast extract	10.000
Calcium carbonate	10.000
Glucose	3.000
Agar	15.000
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

*Acetobacter* species are aerobic, gram negative organisms and found in fruits with high carbohydrate concentration, which is selective for yeasts that produce ethanol. This ethanol forms the substrate for acetic acid bacteria and may oxidize ethanol to acetic acid <sup>(1)</sup>. Various synthetic and maintenance media for *Acetobacter* cultures have been quoted <sup>(2)</sup>. A typical maintenance medium is Acetobacter Agar <sup>(2)</sup> which as when formulated as per Manual of Microbiological Methods <sup>(3)</sup> can be used for the maintenance of *Acetobacter* species utilizing glucose <sup>(4)</sup>.

Yeast extract in the medium provides nitrogen, vitamins and minerals necessary to support bacterial growth. Glucose acts as energy source. Calcium carbonate acts as a buffer.

#### Methodology

Suspend 38 grams of powder media in 1000 ml distilled water. Shake well & heat just to boiling . Dispense in test tubes, taking care to distribute calcium carbonate evenly. Sterilize by autoclaving at 15 lbs pressure (12 1°C) for 15 minutes. Shake the tubes, cool quickly and place them in a slanted position so as to keep the calcium carbonate in suspension.

Note: Due to presence of calcium carbonate, the prepared medium forms opalescent solution with white precipitate.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Gelling

Firm, comparable with 1.5% Agar gel

##### Colour and Clarity of prepared medium

Light amber coloured opalescent gel with heavy white precipitate, forms in tubes as slants.

##### Reaction

Reaction of 3.8% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH Range:- 7.20-7.60

##### Cultural Response/Characteristics

DM 1238: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.



Dehydrated Culture Media  
Bases / Media Supplements

<b>Organism</b>	<b>Inoculum (CFU)</b>
<i>Acetobacter liquifaciens</i> ATCC 14835	50-100

## 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. Vanderzant C., Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D. C.
2. Asai, 1968, Univ. of Tokyo Press, Tokyo, Japan and Univ. Park Press, Baltimore, MD.
3. Manual of Microbiological Methods, 1957, Society of American Bacteriologists, McGraw-Hill Book Company, New York.
4. Catalogue of Bacteria and Bacteriophages, 1992, 18th Ed., American Type Culture Collection, Rockville, MD.

## Disclaimer :

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