

# **Technical Information**

### **Acetate Agar**

Product Code: DM 2225

Application: - Acetate Agar is used for the isolation and cultivation of Leuconostoc and Pediococcus species.

### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Meat extract	5.000
Yeast extract	5.000
Glucose	10.000
Polysorbate 80 (Tween 80)	0.500
Sodium acetate.3H2O	27.220
Agar	20.000
Final pH ( at 25°C)	5.4±0.2
**Formula adjusted, standardized to suit performance parameters	

## **Principle & Interpretation**

. Acetate agar was formulated by Whittenbury <sup>(2)</sup> and then modified by Keddie <sup>(3)</sup> which used for isolation, leuconostoc and pediococcus *Leuconostoc* is a gram-positive and heterofermentative bacteria that is able to produce dextran from sucrose, there by held responsible for causing the stink when creating a sour dough starter. Some species of this micro organisem are also capable of causing human infection <sup>(1)</sup>. *Pediococcus* bacteria are usually considered contaminants of beer and wine even than some strain of *Pediococcus* produce diacetyl, which gives a buttery or butterscotch aroma to some wines (such as Chardonnay) and a few styles of beer. *Pediococcus* species are often used in silage inoculants Peptic digest of animal tissue, yeast extract, meat extract provide all essential growth nutrients. Polysorbate 80 maintains the surface tension of the medium to the optimal level. Glucose is the energy source. Sodium acetate serves as a sole source of carbon.

# Methodology

Suspend 61.9 grams of dehydrated medium in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (12 1°C) for 15 minutes. Mix well and pour into sterile Petri plates.





## **Quality Control**

#### Physical Appearance

Light yellow to beige homogeneous free flowing powder

#### Gelling

Firm, comparable with 2.0% Agar gel.

#### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 6.19% aqueous solution at 25°C. pH: 5.4±0.2

pH Range:- 5.20-5.60

#### Cultural Response/Characteristics

DM 2225: Cultural characteristics observed after an incubation at 25-30°C for 18-48 hours.

Organism Growth

Enterococcus faecalis

ATCC 29212 None-poor

Leuconostoc mesenteroides good-luxuriant

ATCC 12291

Pediococcus acidilactici good-luxuriant

ATCC 33314

## 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. Vagiakou-Voudris E., Mylona-Petropoulou D., Kalogeropoulou E., Chant zis A., Chini S., Tsiodra P., Malamou-Lada E.,J. Infect. Dis. 2002;34(10):766-7
- 2. Whittenbury R., 1965 b, J. Gen. Microbiol., 40:97.
- 3. Keddie R. M., 1951, Proceed. Soc. Appl. Bacteriol., 14:157

### Disclaimer:

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