

## TM 1324 – ACETATE AGAR

### INTENDED USE

For the isolation and cultivation of *Leuconostoc* and *Pediococcus* species.

### PRODUCT SUMMARY AND EXPLANATION

*Leuconostoc* is a genus of gram-positive bacteria, which are heterofermentative and are able to produce dextran from sucrose. These are blamed for causing the stink when creating a sour dough starter. Some species are also capable of causing human infection. *Pediococcus* is a genus of gram-positive lactic acid bacteria, which are purely homofermentative. *Pediococcus* bacteria are usually considered contaminants of beer and wine although their presence is sometimes desired in beer styles such as Lambic. Certain *Pediococcus* isolates 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. Acetate agar was formulated by Whittenbury and then modified by Keddle.

### COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Meat extract	5.000
Yeast extract	5.000
Dextrose (Glucose)	10.000
Polysorbate 80 (Tween 80)	0.500
Sodium acetate	16.400
Agar	20.000

### PRINCIPLE

Peptone, yeast extract, meat extract provides nitrogenous and carbonaceous compounds, vitamins and 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.

### INSTRUCTION FOR USE

- Dissolve 61.9 grams (the equivalent weight of dehydrated medium per litre) of dehydrated medium in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to beige homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 5.4±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Enterococcus faecalis</i>	29212	50-100	None-poor	0-10%	25-30°C	18-48 Hours
<i>Leuconostoc mesenteroides</i>	12291	50-100	Good-luxuriant	>=50%	25-30°C	18-48 Hours
<i>Pediococcus acidilactici</i>	33314	50-100	Good-luxuriant	>=50%	25-30°C	18-48 Hours

#### PACKAGING:

In pack size of 500 gm bottles.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

#### REFERENCES

1. Keddie R. M., 1951, Proceed. Soc. Appl. Bacteriol., 14:157
2. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
3. 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
4. Whittenbury R., 1965 b, J. Gen. Microbiol., 40:97.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

\*For Lab Use Only  
Revision: 08 Nov., 2019