

## Technical Information

### Glucose Yeast Extract Acetate Broth

#### Product Code: DM 1964

**Application:** - Glucose Yeast Extract Acetate Broth is recommended for cultivation of *Lactobacilli*.

#### Composition\*\*

Ingredients	Gms / Litre
Sodium acetate	10.000
Peptic digest of animal tissue	10.000
Yeast extract	10.000
Dextrose	10.000
Dipotassium phosphate	0.250
Monopotassium phosphate	0.250
Magnesium sulphate	0.100
Ferrous sulphate	0.005
Manganese sulphate	0.005
Sodium chloride	0.005
Final pH ( at 25°C)	6.9±0.2

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

#### Principle & Interpretation

Glucose Yeast Extract Acetate Broth is prepared by slight modification of the formula described by Evans and Niven (1) and Rogosa et al (2) and is used for enumerating *Lactobacilli* in pharmaceutical preparations.

It contains a variety of salts like sulphates, phosphates to support the growth of *Lactobacilli*. Necessary nitrogenous nutrients for *Lactobacilli* are provided by peptic digest of animal tissue and yeast extract. Glucose is the source of fermentable carbohydrate. The metallic salts are sources of ions essential for the replication of lactic acid bacteria. Sodium acetate inhibits Streptococci, moulds and many other organisms.

#### Methodology

Suspend 40.61 grams of dehydrated media powder in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

#### Quality Control

##### Appearance

Cream to yellow coloured homogeneous free flowing powder

##### Colour and Clarity

Light yellow coloured clear solution without any precipitate.

##### Reaction

Reaction of 4.06% w/v aqueous solution at 25°C. pH : 6.9±0.2

##### pH Range

6.70-7.10

##### Cultural Response

DM 1964: Cultural characteristics observed after an incubation at 35 - 37°C for 24 - 48 hours.

## Cultural Response

Organism	Growth
<b>Cultural Response</b>	
<i>Lactobacillus acidophilus</i> ATCC 4356	luxuriant
<i>Lactobacillus bulgaricus</i> ATCC 11842	luxuriant
<i>Lactobacillus casei</i> ATCC 9595	luxuriant
<i>Lactobacillus leichmannii</i> ATCC 4797	luxuriant
<i>Lactobacillus plantarum</i> ATCC 8014	luxuriant

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Evans and Niven, 1951, J. Bact., 62:599.
2. Rogosa M., Mitchell J.A. and Wiseman R.F., 1951, J. Bact., 62:132.

## Disclaimer :

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