



## YEP Broth, Modified

M1827

YEP Broth, Modified recommended for cultivation of *Agrobacterium* species and other soil microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
Peptone	10.000
Yeast extract	10.000
Sodium chloride	5.000
Final pH ( at 25°C)	7.0±0.2

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

### Directions

Suspend 25 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

### Principle And Interpretation

YEP Broth is based on the formula described by Tianayan et.al.(1) YEP Broth modified is widely used for the cultivation of *Agrobacterium* species and other soil microorganisms.

*Agrobacterium* is a genus of Gram negative bacteria, soil borne pathogen responsible for crown-gall disease, affecting many higher species of plants. *Agrobacterium* strains used in experiments on YEP broth during plant functional genomic studies. Rhizobial strains is cultured in YEP broth.

Yeast extract and peptone provide nitrogenous compounds, vitamin B complex and other growth nutrients for the growth of *Agrobacterium* . Sodium chloride maintains the osmotic balance of the medium.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Yellow coloured clear solution in tubes

#### Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

M1827: Cultural characteristics observed after an incubation at 35-37°C for 18- 24 hours.

Organism	Inoculum (CFU)	Growth
<b>Cultural Response</b>		
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant
<i>Aeromonas veronii</i>	50-100	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant
<i>Agrobacterium tumefaciens</i> ATCC 33970	50-100	luxuriant

### Storage and Shelf Life

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

## Reference

1. Tianyan Song, Claudia Toma, Noboru Nakasone and Masaaki Iwanaga. (2004). Aerolysin is activated by metalloprotease in *Aeromonas veronii* biovar *sobria* J Med Microbiol 53, 477-482

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