

## TM 2432 - YEP BROTH

### INTENDED USE

Recommended for cultivation of aerobic microorganisms and also *Agrobacterium* species and other soil microorganisms for phytology.

### PRODUCT SUMMARY AND EXPLANATION

YEP Broth is based on the formula described by Tianayan et.al. 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 are cultured in YEP broth.

### COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Yeast extract	10.000
Sodium chloride	5.000

### PRINCIPLE

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.

### INSTRUCTION FOR USE

- Dissolve 25 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense into tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Yellow coloured clear solution in tubes.  
**pH (at 25°C)** : 7.0±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Rhizobium leguminosarum</i>	10004	50-100	Luxuriant	35-37°C	18- 24 Hours



<i>Rhizobium meliloti</i>	9930	50-100	Luxuriant	35-37°C	18- 24 Hours
<i>Agrobacterium tumefaciens</i>	33970	50-100	Luxuriant	35-37°C	18- 24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Good-luxuriant	35-37°C	18- 24 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 25-30°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.







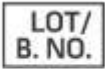


**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

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

**REFERENCES**

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2<sup>nd</sup> Edition.
2. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015)
3. Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.
5. 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

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. 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