



Tryptone Yeast Extract Broth (ISP Medium No. 1)

M356

Intended Use

A general purpose enrichment medium for not particularly fastidious microorganisms.

Composition**

Ingredients	Gms / Litre
Tryptone	5.000
Yeast extract	3.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 8 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks or as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Tryptone Yeast Extract Broth is formulated as per International Streptomyces Project (1).

Tryptone and yeast extract provide nitrogenous compounds, carbon, sulphur, vitamin B complex and trace elements, necessary for bacterial metabolism. With added carbohydrate and a pH indicator, it can also be used for fermentation studies.

Inoculate the tubes with the test organism and incubate at 30°C ± 2°C for upto 96 hours. Inoculate ISP Medium No. 2 (M424) or ISP Medium No. 4 (M359) with the test organisms by placing approximately 0.1 ml of the inoculum near the edge of the plate. Five parallel streaks across the plate are made from this 0.1 ml of inoculum followed by four perpendicular streaks. Incubate the plates. ISP Medium No. 1 is used as an enrichment medium for *Streptomyces* species.

Type of specimen

Food and dairy samples

Specimen Collection and Handling:

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations:

1. Further biochemical tests must be carried out for confirmation.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution without any precipitate

Reaction

Reaction of 0.8% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed after an incubation at 28-32°C for upto 4 days.

Organism	Growth
<i>Escherichia coli</i> ATCC 25922	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	luxuriant
<i>Streptomyces lavendulae</i> ATCC 8664	luxuriant
<i>Streptomyces albus</i> subsp <i>albus</i> ATCC 3004	luxuriant

Reference

1. Sherling E.B. and Gotlieb.,1966, International J.Systemic Bacteriol., 16:3.

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Disclaimer :

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