



PRODUCT SPECIFICATION SHEET

ISP Medium No. 1 (Tryptone Yeast Extract Broth) (DM280)

Intended Use

ISP Medium No. 1 (Tryptone Yeast Extract Broth) (DM280) is recommended for enrichment of non-fastidious microorganisms.

Product Summary and Explanation

ISP Medium No. 1 is also referred to as Tryptone Yeast Extract Broth. ISP media were developed for the International Streptomyces Project (ISP) in order to select stable properties and reproducible procedures for characterization of *Streptomyces* species.⁽¹⁾

Principles of the Procedure

ISP Medium No. 1 (Tryptone Yeast Extract Broth) contains casein enzymic hydrolysate which provides nitrogen, carbon, sulphur, and trace elements, necessary for bacterial metabolism. Yeast extract is a source of vitamin B complex. It can also be used for fermentation studies by an added carbohydrate and a pH indicator.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	5.00
Yeast extract	3.00
Final pH: 7.0 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 8 grams of medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense as desired.
4. Autoclave at 121°C, 15 psi pressure, for 15 minutes/validated cycle.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Light amber coloured clear solution without any precipitate
Reaction of 0.8% Solution	pH : 7.0 ± 0.2 at 25°C
Gel Strength	Not Applicable





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Expected Cultural Response: Cultural characteristics observed after an incubation at 28-32°C for 18-24 hours.

Sr. No.	Organisms	Results to be achieved
		Growth
1.	<i>Escherichia coli</i> ATCC 25922	good-luxuriant
2.	<i>Staphylococcus aureus</i> ATCC 25923	good-luxuriant
3.	<i>Streptomyces lavendulae</i> ATCC 8664	good-luxuriant
4.	<i>Streptomyces albus subsp albus</i> ATCC 3004	good-luxuriant

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

1. Inoculate the tubes with the test organism and incubate at 30°C ± 2°C for upto 96 hours. Inoculate ISP Medium No. 2 (DM715) or ISP Medium No. 4 (DM777) with the test organisms by placing approximately 0.1 ml of the inoculum near the edge of the plate.
2. Five parallel streaks across the plate are made from this 0.1 ml of inoculum followed by four perpendicular streaks.
3. Incubate the plates. ISP Medium No. 1 is used as an enrichment medium for *Streptomyces* species.
4. Refer to appropriate references for standard test procedures.

Results

Refer to appropriate references and test procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : ISP Medium No. 1 (Tryptone Yeast Extract Broth)

Product Code : DM280

Available Pack sizes : 100gm / 500gm

References

1. Sherling E.B. and Gotlieb.,1966, International J.Systemic Bacteriol., 16:313.





PRODUCT SPECIFICATION SHEET

Further Information

For further information please contact your local MICROMASTER Representative.



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