

TRYPTOSE PHOSPHATE BROTH (7278)

Intended Use

Tryptose Phosphate Broth is used for the cultivation of a wide variety of fastidious microorganisms.

Product Summary and Explanation

Tryptose Phosphate Broth is an infusion-free buffered medium recommended for the cultivation of fastidious, pathogenic microorganisms.

Tryptose Phosphate Broth is valuable in tissue culture procedures, as shown by Ginsberg, Gold, and Jordan. The proteose content of Tryptose Phosphate Broth is considered to be a stimulating factor for cells. Tryptose Phosphate Broth is specified for cell culture procedures.²

Principles of the Procedure

The nitrogen, vitamins, and carbon sources are provided by Enzymatic Digest of Casein. Dextrose is the carbohydrate source. Sodium Chloride maintains the osmotic environment. Disodium Phosphate is the buffering agent.

The addition of 0.1 – 0.2% agar to Tryptose Phosphate Broth facilitates anaerobic growth, and aids in dispersion of reducing substances and CO₂ formed in the environment.³ The low agar concentration provides suitable conditions for aerobic growth in the upper zone, and microaerophilic and anaerobic growth in the lower zone.

Formula / Liter

Enzymatic Digest of Casein 20 g
Dextrose..... 2 g
Sodium Chloride 5 g
Disodium Phosphate..... 2.5 g

Final pH: 7.3 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precautions

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

Directions

1. Dissolve 29.5 g of the medium in one liter of purified water.
2. Heat with frequent agitation to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light tan.

Prepared Appearance: Prepared medium is gold and clear.

Expected Cultural Response: Cultural response in Tryptose Phosphate Broth at 35°C after 24 - 72 hours incubation.

Microorganism	Response
<i>Escherichia coli</i> ATCC® 25922	growth
<i>Neisseria meningitidis</i> ATCC® 13090	growth
<i>Staphylococcus aureus</i> ATCC® 25923	growth
<i>Streptococcus pneumoniae</i> ATCC® 6305	growth
<i>Streptococcus pyogenes</i> ATCC® 19615	growth

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

Test Procedure

Refer to appropriate references for a complete discussion on the application of Tryptose Phosphate Broth.

Results

Refer to appropriate references for results.

Storage

Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration

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

Limitation of the Procedure

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Packaging

Tryptose Phosphate Broth	Code No.	7278A	500 g
		7278B	2 kg
		7278C	10 kg

References

1. **Ginsberg, Gold, and Jordan.** 1955. Proc. Soc. Exp. Biol. Med. **89**:66.
2. **Harmon, S. M., D. A. Kautter, D. A. Golden, and E. J. Rhodehamel.** 1995. FDA Bacteriological analytical manual, 8th ed. AOAC International, Arlington, VA.
3. **MacFaddin, J. D.** 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1, p. 802-804. Williams & Wilkins, Baltimore, MD.

Technical Information

Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (410)780-5120 or fax us at (410)780-5470.