

Tryptic Soy Agar with Lecithin and Tween 80 (NCM0011)

Intended Use

Tryptic Soy Agar with Lecithin and Tween 80 is used for the isolation of microorganisms from surfaces sanitized with quaternary ammonium compounds and is not intended for use in the diagnosis of disease or other conditions in humans.

Description

In 1955, Leavitt et al. discovered Tryptic Soy Agar supported excellent growth of aerobic and anaerobic microorganisms. Tryptic Soy Agar is a nutritious base and a variety of supplements are added to enhance the medium, including Lecithin and Tween 80. The Lecithin and Tween 80 inactivate some preservatives that may inhibit bacterial growth, reducing “preservative carryover”. Tryptic Soy Agar with Lecithin and Tween 80 is recommended for determining the sanitation efficiency of containers, equipment, and work area (environmental monitoring).

Typical Formulation

Enzymatic Digest of Casein	15.0 g/L
Enzymatic Digest of Soybean Meal	5.0 g/L
Sodium Chloride	5.0 g/L
Lecithin	0.7 g/L
Tween 80	5.0 g/L
Agar	20.5 g/L

Final pH: 7.3 ± 0.2 at 25°C

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

Precaution

Refer to SDS

Preparation

1. Suspend 51.2 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

Test Procedure

Refer to appropriate references for specific procedures using Tryptic Soy Agar with Lecithin and Tween 80 or environmental monitoring.

Quality Control Specification

Dehydrated Appearance: Powder is homogeneous, lumpy, and beige.

Prepared Appearance: Prepared medium is trace to moderately hazy and yellow-beige.

Technical Specification Sheet



Expected Cultural Response: Cultural response on Tryptic Soy Agar with Lecithin and Tween 80 incubated aerobically at 33-35°C and examined for growth after 18 - 48 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus brasiliensis</i> ATCC® 16404	50-100	50-200% Recovery
<i>Bacillus subtilis</i> ATCC® 6633	50-100	50-200% Recovery
<i>Candida albicans</i> ATCC® 10231	50-100	50-200% Recovery
<i>Clostridium sporogenes</i> ATCC® 11437	50-100	50-200% Recovery
<i>Enterococcus faecalis</i> ATCC® 19433	50-100	50-200% Recovery
<i>Escherichia coli</i> ATCC® 25922	50-100	50-200% Recovery
<i>Pseudomonas aeruginosa</i> ATCC® 27853	50-100	50-200% Recovery
<i>Pseudomonas aeruginosa</i> ATCC® 9027	50-100	50-200% Recovery
<i>Salmonella typhimurium</i> ATCC® 14028	50-100	50-200% Recovery
<i>Staphylococcus aureus</i> ATCC® 6538	50-100	50-200% Recovery
<i>Staphylococcus epidermidis</i> ATCC® 12228	50-100	50-200% Recovery

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

Results

Refer to appropriate references for test results.

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.

Limitations of the Procedures

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

Storage

Store dehydrated culture media at 2 – 8°C away from direct sunlight. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

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3. Quisno, R., I. W. Gibby, and M. J. Foter. 1946. A neutralizing medium for evaluating the germicidal potency of the quaternary ammonium salts. Am. J. Pharm. 118:320-323.
4. Erlandson, A. L., Jr., and C. A. Lawrence. 1953. Inactivating medium for hexachlorophene (G-11) types of compounds and some substituted phenolic disinfectants. Science 118:274-276.
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