

Tryptone Soy Agar (NCM0020)

Intended Use

Tryptone Soy Agar (TSA) is a general-purpose agar which will support the growth of a wide range of microorganisms and is not intended for use in the diagnosis of disease or other conditions in humans.

Description

A general purpose agar which will support the growth of a wide range of microorganisms. The medium can be used for phage typing, colicine typing and for testing the X and V factor requirements of *Haemophilus* spp. TSA is referenced in many international standards as the non-selective reference medium used in quality control tests. Enzymatic digests of casein and soybean act as a source of nitrogen and amino acids and sodium chloride maintains the osmotic balance.

Typical Formulation

Tryptone	15.0 g/L
Soy Peptone	5.0 g/L
Sodium Chloride	5.0 g/L
Agar	12.0 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 37 grams of the medium in one liter of purified water.
2. Heat with frequent agitation to completely dissolve the medium if necessary.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

Test Procedure

Surface plating. Time and temperature to suit organisms, usually aerobic.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing and light to dark beige.

Prepared Appearance: Prepared medium is a clear, pale yellow colored gel.

Expected Cultural Response: Cultural response after 21 ± 3 hours incubation at the temperature specified by the relevant standard.

Microorganism	Approx. Inoculum (CFU)	Recovery
<i>Bacillus cereus</i> ATCC 11778	10-100	> 70 %
<i>Bacillus subtilis</i> ATCC 6633	10-100	> 70 %
<i>Escherichia coli</i> ATCC 8739	10-100	> 70 %
<i>Listeria monocytogenes</i> NCTC 10527	10-100	> 70 %
<i>Staphylococcus aureus</i> ATCC 25923	10-100	> 70 %

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing or 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 2-30°C away from direct sunlight. 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.

References

1. Blair, J.E. and Carr, M. (1953). The bacteriophage typing of staphylococci. Journal of Infectious Disease 93: 1-13. Examination of Dairy Products. A.P.H.A., New York.