

PRODUCT INFORMATION

Product Type: PETRI DISHES 90mm

Cat No. PD087 Tryptic Soy Agar (TSA)

Intended Use:

Tryptic Soy Agar (TSA) is a general-purpose agar medium used in microbiology for the cultivation, isolation, and enumeration of a wide variety of microorganisms. It provides a nutrient-rich environment that supports the growth of a broad spectrum of bacteria, yeasts, and molds. TSA is commonly utilized in various applications in microbiology laboratories.

Principle and Uses:

Tryptic Soy Agar is used for the preparation and maintenance of test strains used in growth promotion tests, suitability of the counting methods and as negative controls as described in the Harmonized USP/EP/JP. It is also a support plating medium for various protocols described in the microbial enumeration test section of the Harmonized USP/EP/JP. Tryptic Soy Agar is not intended for use in the diagnosis of disease or other conditions in humans. Enzymatic digests of casein and soybean act as a source of nitrogen and amino acid and sodium chloride maintains the osmotic balance.

Test Procedure

Expected Cultural: Cultural response on Tryptic Soy Agar tested at Harmonized USP/EP/JP specified temperatures and incubation times.

Limitations of the Procedures

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

References

1. European Pharmacopoeia 10th Edition (2020)
2. United States Pharmacopeia National Formulary 2018: USP 41 NF 36
3. Japanese Pharmacopeia 17th Edition (2017)
4. Orth, D. S. 1993. Handbook of cosmetic microbiology. Marcel Dekker, Inc., New York, NY.
5. Greenberg, A. E., L. S. Clesceri, and A. D. Eaton (eds.). 2017. Standard methods for the examination of water and wastewater, 23rd ed. American Public Health Association, Washington, D.C.
6. www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalytical manualBAM/default.htm.
7. Curry, A. S., G. G. Joyce, and G. N. McEwen, Jr. 1993. CTFA Microbiology guidelines. The Cosmetic, Toiletry, and Fragrance Association, Inc. Washington, D.C.

Composition

Enzymatic Digest of Casein	15.0 g/L
Enzymatic Digest of Soybean	5.0 g/L
Sodium Chloride	5.0 g/L
Agar	15.0 g/L

Storage: 2-25°C

Appearance: Prepared medium without enrichment is trace to slightly hazy and yellow beige in color.

Final pH: 7.3 ± 0.2 at 25°C

Package contents: 10 plates in a package

Exp. Date: Printed on label and on the item.

Required materials not supplied: Laboratory equipment as required.

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

Waste Disposal

After interpretation all plates should be destroyed by standard incineration methods.

Performance Testing Results

GPT: Inoculum 10-100 cfu.

MICROORGANISM	ATCC	Incubation Temp. (°C)	Incubation Cond.	Recovery
<i>Staphylococcus aureus</i>	6538	30-35 °C	Aerobic, 48 hours	70-200%
<i>Bacillus subtilis</i>	6633	30-35 °C	Aerobic, 48 hours	70-200%
<i>Bacillus cereus</i>	11778	30-35 °C	Aerobic, 48 hours	70-200%
<i>Escherichia coli</i>	8739	30-35 °C	Aerobic, 48 hours	70-200%
<i>Escherichia coli</i> O157	700728	30-35 °C	Aerobic, 48 hours	70-200%
<i>Listeria monocytogenes</i> 4b	13932	30-35 °C	Aerobic, 48 hours	70-200%
<i>Pseudomonas aeruginosa</i>	9027	30-35 °C	Aerobic, 48 hours	70-200%
<i>Candida albicans</i>	10231	30-35 °C	Aerobic, 48 hours	70-200%
<i>Aspergillus brasiliensis</i>	16404	30-35 °C	Aerobic, 48 hours	70-200%
<i>Candida albicans</i> .	10231	20-25 °C	Aerobic, 3-5 days	70-200%
<i>Aspergillus brasiliensis</i>	16404	20-25 °C	Aerobic, 3-5 days	70-200%

Acceptance criteria

- Performance: the batch is released if microbial count from minimum inoculum correlates to that on control medium inoculated parallelly the acceptance criterion is at least 70% recovery.
- Sterility: the batch is released if item meets sterility SOP requirements.
- Physical parameters: the batch is released if item meets physical parameter SOP requirements.