

Trypticase Soy Agar (TSA) with 5% sheep blood

Cat No: **111004**

Intended Use

Trypticase Soy Agar (TSA) with 5% sheep blood is an enriched, general-purpose medium used for the isolation and cultivation of a wide range of microorganisms, including both fastidious and non-fastidious bacteria. It is a non-selective agar for bacterial isolation. It is commonly employed in clinical microbiology to support the growth of organisms from clinical specimens such as throat swabs, wound exudates, and blood cultures. The addition of 5% defibrinated sheep blood enhances the medium by providing extra nutrients and allowing for the observation of hemolysis patterns—alpha, beta, or gamma—which are important for the presumptive identification of certain bacterial species, particularly *Streptococcus*. This medium is a standard tool in diagnostic laboratories for evaluating the hemolytic characteristics of bacteria and for recovering pathogens from diverse sample types.

Principle

This medium contains two peptones derived from the enzymatic hydrolysis of casein and soy proteins, serving as rich sources of nitrogen. Soy peptone also provides natural sugars that enhance bacterial growth. Sodium chloride delivers essential electrolytes necessary for nutrient transport and maintaining osmotic balance. Bacteriological agar is included as the solidifying agent.

Storage

Recommended storage conditions: 2 to 8 °C. Store in cool dry place
 Recommended shipping conditions: 2 to 8 °C.

Production Standard

The formulation is prepared according to the recommendations of the current European, United States, and China Pharmacopoeia.

Precautions

1. The product may secrete water when exposed to temperature changes between low and room temperature, which is normal. Allow it to reach room temperature before use and, if possible, pre-dry it in a sterile drying oven.
2. Handle the plates with sterile gloves to prevent contamination during use.
3. Store the plates in a cool, dry place away from direct sunlight to maintain their integrity.
4. Avoid opening the plates until they are ready to be used in the sampling area to prevent airborne contamination.
5. Ensure the plates are used within their expiration date to guarantee accurate results.
6. Dispose of used plates according to biohazard waste protocols to prevent contamination and ensure safety.

Quality Control

The following were incubated at 30-35°C for 18-24 hours for bacteria, and 3-5 days for fungi. The results are as follows:

Test Strains	Expected Results	Characteristic Reaction
<i>Staphylococcus aureus</i> ATCC 6538	Good growth	Good Beta haemolysis; Clear halo
<i>Beta-hemolytic streptococcus</i> CMCC(B)32210	Good growth	Good Beta haemolysis; Clear halo

Product Content

Product Content	Cat No.	Size
Trypticase Soy Agar (TSA) with 5% sheep blood	111004	10 plates/bag; 200 plates/case

Composition

Tryptone	15.0 g
Papaic digest of soybean meal	5.0 g
Sodium Chloride	5.0 g
Bacteriological agar	15.0 g
Sheep blood	50 mL
Water	950 mL
Final pH (at 25° C)	7.3 ± 0.2

Shelf Life

Shelf life: 3 months from date of manufacture

Packaging

90mm x 10 plates per bag; 200 plates/case

Each plate filled with 20mL ± 2mL

Disposal

Please adhere to the respective regulations for the disposal of used culture medium (e.g., autoclave for 30 minutes at 121 °C)

References

1. ISO 9308-1 Standard (2000) Water Quality. Detection and enumeration of *E. coli* and coliform bacteria. Membrane filtration method.
2. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
3. ISO/TS 22964 (2006) Milk and milk products.- Detection of *Enterobacter sakazakii*.

Specially manufactured for:

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