CHROMOGENIC
LIFE SCIENCES PVT LTD

TECHNICAL DATA SHEET

SHEEP BLOOD AGAR PLATES — P90/SBA (TSA) - 20

INTENDED USE

Sheep Blood Agar is enriched media used for isolation and cultivation of fastidious and non-fastidious microorganisms from clinical specimens based on their hemolytic properties.

TYPES OF SAMPLE

- Clinical

PRINCIPLE

Tryptic soya agar is used as a base for preparation of sheep blood agar plates. Hemolysins are exotoxins produced by bacteria that lyse red blood cells. The hemolytic reaction can be visualized on blood agar Plates. On blood agar plates colonies of hemolytic bacteria may be surrounded by clear, colorless zones, where the red blood cells have been lysed and the hemoglobin destroyed to a colorless compound. This is beta hemolysis. Other types of bacteria can reduce hemoglobin to methaemoglobin which produces a Greenish zone around the colonies and is called alpha hemolysis. Gamma hemolysis is no hemolysis, where no change in the medium is observed.

The combination of casein and soy peptones in TSA renders the medium highly nutritious by supplying organic nitrogen, particularly amino acids, and longer-chained peptides. The sodium chloride maintains osmotic equilibrium. Agar is a solidifying agent. Sheep Blood Agar provides maximum recovery of organisms without interfering with their hemolytic reactions.

INGREDIENTS

Approximate Formula Per Liter	
Pancreatic digest of casein	15.0 g
Agar	15.0 g
Papaic digest of soyabean	5.0 g
Sodium Chloride	5.0 g
Sheep Blood	7.5 – 10%
Final pH 7.3 ± 0.2 at 25°C	

PHYSICAL PARAMETERS OF PREPARED PLATES

- Appearance: 90 mm petri plates with a smooth surface and absence of any particles, cracks, or bubbles.
- Colour: Cherry Red
- Clarity: Opaque
- Volume: 20-22 ml

STERILITY CHECK

Sterility of the plates is checked by incubating the plates at 35-37℃ for 3 days.

MICROBIAL PERFORMANCE DATA

Culture characteristics observed after inoculating 50-100 CFU and incubate at 35-37 ℃ for 24-48 hours in 5-10% CO_2 (If required by Microorganism) & 20-25℃for 48-72 hours aerobically for fungus/mold. Examine plate for typical colony morphology and hemolytic reactions. If material is being cultured directly from a swab, roll the swab over a small area of the agar surface and streak for isolation.

To improve detection of all pathogens contained in the specimen, it must also be streaked onto appropriate selective media.

Test Strains	ATCC No.	Growth	Hemolysis
Streptococcus Pneumonia	ATCC 6305	Good	Alpha
Streptococcus pyogenes	ATCC 19615	Good	Beta
Staphylococcus aureus	ATCC 25923	Good	Beta
Candida albicans	ATCC 10231	Good	Non-Hemolytic
Enterococcus faecalis	ATCC 29212	Good	Non-Hemolytic
Escherichia coli	ATCC 25922	Good	Non-Hemolytic

LIMITATIONS & COMPLEMENTARY TESTS

Individual organisms differ in their growth requirements and may show variable growth patterns on the medium. Further biochemical and serological tests must be carried out for identification.

PRECAUTIONS

- For in-Vitro diagnostic use. Read the label details and storage before opening the pack.
- Wear protective gloves / protective clothing / eye protection / face protection.
- Follow good microbiological lab practices while handling specimens and culture.

PACK SIZE AND PACKAGING

20 plates per kit packed with gamma irradiated packing material.

STORAGE & SHELF LIFE

- Store at 10 -15 ℃.
- Use before the expiry date mentioned on the label.
- Product is temperature sensitive; protect from direct sunlight, excessive heat, moisture, and freezing.

DISPOSAL

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Materials that have come in contact with infectious / clinical samples must be decontaminated and disposed of in accordance with current laboratory techniques and regulations.

REFERENCE

- Isenberg, H. D. (ed.). 1992. Interpretation of aerobic bacterial growth on primary culture media, Clinical microbiology procedures handbook, vol.1, p. 1.6.1-1.6.7. American Society for Microbiology, Washington, D.C.