

TECHNICAL DATA SHEET

SHEEP BLOOD WITH COLUMBIA AGAR PLATES

P90/SBA (COLUMBIA) - 20

INTENDED USE

Sheep Blood Agar (Columbia Agar Base) is a highly nutritious general-purpose medium for the isolation and cultivation of the non-fastidious and fastidious microorganisms from various clinical specimens and non-clinical specimens.

TYPES OF SAMPLES

- Clinical

PRINCIPLE

The medium contains peptones that provide essential nitrogen, carbon, vitamins, and trace elements for bacterial growth. Yeast extract serves as a rich source of B-complex vitamins. Corn starch functions both as an energy source and as a detoxifying agent by absorbing harmful metabolic by-products. Sodium chloride maintains osmotic balance and supplies vital electrolytes. Sheep blood is incorporated to support the growth of fastidious organisms by supplying the X factor (heme) and enabling the observation of hemolytic activity. Compared to other blood agar bases, this medium promotes larger colony formation and more luxuriant growth.

INGREDIENTS

Approximate Formula Per Liter	
Pancreatic digest of casein	12.0 g
Agar	13.5 g
Peptic Digest of Animal Tissue	5.0 g
Sodium Chloride	5.0 g
Yeast Extract	3.0 g
Beef Extract	3.0 g
Corn Starch	1.0 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°C for 2 days.

MICROBIAL PERFORMANCE DATA

Culture characteristics observed after inoculating 50-100 CFU and incubate at 35-37 °C for 24-48 hours in 5-10% CO₂ (If required by Microorganism) & 20-25°C 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	Haemolysis
<i>Streptococcus Pneumonia</i>	ATCC 6305	Good	Alpha
<i>Streptococcus pyogenes</i>	ATCC 19615	Good	Beta
<i>Staphylococcus aureus</i>	ATCC 25923	Good	Beta
<i>Candida albicans</i>	ATCC 10231	Good	Non-Hemolytic
<i>Enterococcus faecalis</i>	ATCC 29212	Good	Non-Hemolytic
<i>Escherichia coli</i>	ATCC 25922	Good	Non-Hemolytic

LIMITATIONS & COMPLEMENTARY TESTS

- It is recommended that biochemical, immunological, molecular and mass spectrometry testing be performed on colonies from pure culture for complete identification.
- *Neisseria gonorrhoeae* does not grow well on this medium.

- The medium is not suitable for the isolation and growth of Mycobacterium, Legionella, Bordetella and other organisms with highly specific nutritive requirements.

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 °C.
- 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.