BLOOD AGAR BASE

ABBL-00P-500

- **Principle**

Blood Agar Base is used for the isolation, cultivation and detection of haemolytic reaction of fastidious microorganisms. It is suitable for isolating and cultivating a wide range of microorganisms with difficult growth characteristics. Upon adding blood, it can be utilized for determining haemolytic reactions. The heart infusion and meat peptone are rich sources of nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Bacteriological agar is the solidifying agent. The addition of blood provides extra growth factors for fastidious microorganisms and is the basis for determining haemolytic reactions. Haemolytic patterns may vary with the type of blood or base medium used. For example, defibrinated sheep blood gives best results for Group A streptococci.

- **Regulatory compliance**

This product is manufactured under a quality management system in accordance with ISO 9001 and ISO 13485, and its formulation and quality control comply with applicable international standards, such as ISO 11133, where relevant.

- **Composition**

Ingredients	**g/L**
Bacteriological Agar	15.00
Meat peptone	10.00
Sodium chloride	5.00
Heart infusion	10.00

- **Preparation**

Suspend 40 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C and aseptically add 5-10% of sterile defibrinated blood, homogenize and pour intro Petri dishes. Be careful to avoid bubble formation when adding the blood to the cooled medium and rotate the flask or bottle slowly to create a homogeneous solution. If desired, Polyenrichment Supplement (BLPS-00P-010) may be added to increase growth.

- **Applications and use**

For clinical diagnosis, the type of sample is secretions of the respiratory tract.

- Use standard procedures to obtain isolated colonies from specimens.

- Incubate at 35±2 °C for 24-48 hours.

- Since many pathogens require carbon dioxide on primary isolation, plates may be incubated in an atmosphere containing approximately 5-10% CO_2.

Results:

1. Alpha-haemolysis: greenish discoloration of medium.

2. Beta-haemolysis: clear zone surrounding colony.

3. Gamma-haemolysis: no change.

- **Quality control**

Solubility	Without rests
Appearance	Fine powder
Colour of the dehydrated medium	Toasted
Colour of the prepared medium	Opaque cherry red
pH at 25 °C	7.3 ±0.2

- **Microbiological test**

Incubation conditions: 35±2 ºC, CO_2 atmosphere /24-48 h.

Organism	ATCC	Growth	Characteristics reaction
Staphylococcus epidermidis	12228	Good	-
Neisseria meningitidis	13090	Good	-
Streptococcus pyogenes	19615	Good	Beta haemolysis
Staphylococcus aureus	25923	Good	Beta haemolysis
Streptococcus pneumoniae	6305	Good	Alpha haemolysis

- **Storage**

The product is highly hygroscopic; keep the container always closed and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Temp. Min.:2 °C Temp. Max.:25 °C.

Note: Sterilize media immediately after reconstitution.

- **Bibliography**

Snavely and BrahierA. J. Clin. Path. 33:511. 1 960.Hosty, Freeman and Irwin, Public, Health. Lab., 1953.

Schubert, Edwards and Ramsey J. Bact. 77:648, 1959. APHA Diagnostic Procedures and Reagents 3.a edition, 1951. Tharshis and Frish AM. J. Clin. Path. 21:101. 1951.

- **Product use limitation**

This product is developed, designed and supplied exclusively for research use only. It is not intended for diagnostic applications or drug development, and it is not suitable for administration to humans or animals.