OXALIS Diagnostics Pvt. Ltd.

Technical Data

Blood Agar Base. 100 g / 500 g

Used for isolating and cultivating fastidious microorganisms with or without added blood

Product Presentation:

Cat No.	Product description	Pack Size
11020020100	Blood Agar Base	100 Gram
11020020500	Blood Agar Base	500 Gram

Principle

Without addition of blood the medium may be employed as a Nutrient Agar, or as a medium for the short-term maintenance of stock cultures. With added blood or serum, the medium is suitable for the cultivation of many fastidious organisms as well as determination of haemolytic reactions, which is an important diagnostic criterion for organisms like Streptococci, Staphylococci, etc. However, haemolytic reactions depend on the animal blood used. Group A Streptococci gives best results on sheep blood. *Haemophilus haemolyticus* colonies produce haemolysis and mimic *Streptococcus pyogenes* on horse blood. Blood Agar Base is specified in standard methods for food testing and is included in the Bacteriological Analytical Manual for testing of cosmetics. Peptone and tryptone provide nitrogen, carbon and other growth factors. Sodium chloride maintains the osmotic balance. Supplementation with blood provides additional growth factors for fastidious organisms and is the basis for determining haemolytic reactions.

Composition

Ingredients	Grams / Litre
Peptone	10.00
Tryptone	10.00
Sodium Chloride	5.00
Agar	15.00

Final pH (at 25°C) 7.4 ± 0.2

*Formula adjusted, standardized to suit performance parameters

Specimen Collection and Handling

Ensure that all samples are properly labeled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

- ✓ Suspend 40.00 g of powder in 1000 mL distilled water.
- ✓ Mix thoroughly.
- ✓ Boil to dissolve the medium completely. Avoid Overheating.
- ✓ Sterilize by autoclaving 121°C for 15 minutes or as per validated cycle.
- ✓ For preparation of blood agar, cool the base to 45°C-50°C and aseptically add 5% v/v sterile,defibrinated blood. Mix well.

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Storage and Stability

- ✓ Store Dehydrated culture media in cool, dry place at 10°C-30°C away from direct light.
- ✓ Store prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Quality Control

Dehydrated Appearance: Beige coloured, homogeneous, free flowing powder
Prepared Appearance:
Basal Medium: Dark amber coloured, slightly opalescent gel forms in petridishes.
After addition of 5% defibrinated blood - Cherry red, opaque gel forms in petridishes.
Growth Promotion Test: Growth is observed after an incubation at 35°C±2°C for 48 hours under anaerobic condition.

Cultural Response :

Organism	Type Culture	Growth	Haemolysis	Incubation Temperature	Incubation Period
Streptococcus pyogenes	ATCC 19615	Good	Beta	35°C -37°C	18 Hours
Staphylococcus aureus	ATCC 25923	Good	Beta	35°C -37°C	18 Hours
Streptococcus pneumoniae	ATCC 6305	Good	Alpha	35°C -37°C	18 Hours

Interpretation of Results

- ✓ Examination of plates for growth after completion of incubation period.
- ✓ Colony morphology of some organisms on Blood Agar containing 5% sheep blood:
- ✓ Haemolytic Streptococci may appear as opaque or translucent, greyish, small or large, matt or mucoid colonies, surrounded by a zone of haemolysis.
- ✓ Pneumococci usually appear as very flat, smooth, translucent, greyish and sometimes mucoid colonies surrounded by a narrow zone of alpha (green) haemolysis.
- ✓ Staphylococci appear as opaque, white to golden yellow colonies with or without zones of betahaemolysis.
- ✓ *Listeria* may form small zones of beta haemolysis.
- ✓ Other organisms of clinical significance may also grow on this medium.
- ✓

Warranty

- ✓ This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Disposal

Disposal of infectious material and material that comes in to contact with clinical sample must be decontaminated and dispose of by autoclaving or incineration or established laboratory procedures.
User must be ensure safe disposal of used or unusable preparation of the products.

Reference

1. Downes and Ito (ed.) 2001, Compendium Of Methods For The Microbiological Examination Of Foods, 4th edition, APHA Washington DC.
2. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. A, AOAC, International, Gaithersburg, Md.
3. Atlas. 1993. Handbook of microbiological media. CRC Press, Boca Raton, Fla.

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