Ready Prepared Media

Technical Information

BHI Agar Plate

Product Code: PM 1211

Application: Recommended for the cultivation of fastidious pathogenic bacteria, yeasts and moulds from clinical and non-clinical samples

Composition**

Ingredients	Gms / Litre
HM infusion powder #	12.500
BHI powder	5.000
Proteose peptone	10.000
Dextrose (Glucose)	2.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Agar	15.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters#
Equivalent to Calf brain infusion from

Principle & Interpretation

Brain Heart Infusion Agar is highly nutritious and can support luxuriant growth of wide variety of microorganisms. It canbe further enriched by the addition of blood or rendered selective by adding different antibiotics (1,2). It is a generalpurpose medium used for primary isolation of aerobic bacteria from clinical specimens.

Proteose peptone and infusions used in the media serves as sources of carbon, nitrogen, vitamins, amino acids, along with essential growth factors. Dextrose is the energy source. Sodium chloride maintains the osmotic equilibrium of the medium while disodium phosphate buffers the medium. Defibrinated sheep blood added to the basal medium provides essential growth factors for the more fastidious fungal organisms.

Type of specimen

Clinical samples - pathological samples like faeces

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use. For professional use only. Read the label before opening the pack. Wear protective gloves/ protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens.Safety guidelines may be referred in individual safety data sheets.

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Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium .
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. Further biochemical tests must be carried out for complete identification
4. It is recommended to store the plates at 24-30°C to avoid minimum condensation .

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Quality Control

Appearance
Sterile BHI Agar in 90 mm disposable plates
Colour of medium
Light amber coloured medium
Quantity of medium
25 ml of medium in 90 mm disposable plates.
pH
7.20-7.60
Sterility Check
Passes release criteria
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Oragnism	Inoculum (CFU)	Growth	Recovery
Candida albicans ATCC26790	50-100	Luxuriant	>=70%
Staphylococcus aureussubsp. aureus ATCC 25923 (00034*)	50-100	Luxuriant	>=70%
Streptococcus pneumoniae ATCC 6303	50-100	Luxuriant	>=70%
Shigella flexneri ATCC12022 (00126*)	50-100	Luxuriant	>=70%
Escherichia coli ATCC25922 (00013*)	50-100	Luxuriant	>=70%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 20-30°C. Use before expiry period on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,4).

Further Reading

1. Conant N. F., 1950, Diagnostic Procedures and Reagents, 3rd Ed., APHA Inc.
2. Roseburg T. et al, 1944, J. Infect. Dis., 74:131.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Disclaimer

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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- Do not use the products if it fails to meet specificatons for identity and performens parameters.