Technical Data

BHI Blood Agar Plate w/ Vancomycin

MP5382

Intended Use:

Recommended for cultivation of fastidious pathogenic bacteria that are resistant to vancomycin particularly enterococci.

Composition**

Ingredients	g / L
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
Vancomycin	8mcg
5% Sheep blood	50 ml
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Calf brain infusion from

Directions

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

Principle And Interpretation

BHI Agar is highly nutritious and can support luxuriant growth of wide variety of microorganisms. It can be further enriched by the addition of blood or rendered selective by adding different antibiotics (1,2). Enterococci usually occur as the normal flora in the intestines of mammals. The presence of enterococci is an indication of faecal contamination (3). The increasing development of multiple resistance towards antibiotics particularly vancomycin by enterococci is a serious threat to the world (4). Vancomycin- resistant Enterococcus (VRE) is the name given to a group of bacterial species of the genus Enterococcus that are resistant to the antibiotic vancomycin. Vancomycin resistant Enterococci Agar is formulated as per the recommendations of Centre for Disease Control and Prevention (CDC) for the selective isolation of vancomycin resistant enterococci (5).

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 growth . Addition of Vancomycin helps in inhibiting gram positive organisms and selectively permits the growth of Vancomycin Resistant Enterococci.

Type of specimen

Clinical samples - Rectal swab, Stool sample

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. 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.

Limitations

1. Some intermediate strains may show poor growth due to nutritional variations and resistance to Vancomycin.
2. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

3.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.

4. Further confirmation must be carried out by sensitivity testing.

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.

Quality Control

Appearance

Sterile BHI blood agar w/vancomycin in 90 mm disposable plates with smooth surface and absence of black particles/ cracks/bubbles

Colour of medium

Red coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

pH

7.10-7.50

Sterility Check

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Enterococcus faecalis (VRE)ATCC 51299	50-100	luxuriant	>=50%
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^3	inhibited	0%
Enterococcus faecalis ATCC 29212 (00087*)	>=10^3	inhibited	0%
Enterococcus faecium (VRE) ATCC 700221*)	50-100	luxuriant	>=50%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 2-8°C Use before expiry date 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 (6,7).

Reference

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. Mara D., Horan NJ : The Handbook of water, wastewater and microbiology, Amsterdam, The Netherlands, Academic Press ; 2003.
4. Mascini EM, Bonten MJ : Vancomycin- resistant enterococci : consequences for therapy and infection control. Clin. Microbiol Infect.2005,11 (Suppl.4) :43-56.
5. CDC Preventing the spread of vancomycin resistance: a report from the Hospital Infection Control Practices Advisory Committee(1994). Fed Regist. May17.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

7.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.

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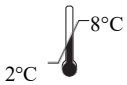
IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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