



## BHI Agar Plate w/ Vancomycin

MP5381

### Intended Use:

Recommended for selective isolation of vancomycin resistant enterococci

### 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
Vancomycin	6mg
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

### Directions

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

### Principle And Interpretation

Brain Heart Infusion 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 (1,7). Enterococci usually occur as the normal flora in the intestines of mammals. The presence of enterococci is an indication of faecal contamination (5). The increasing development of multiple resistance towards antibiotics particularly vancomycin by enterococci is a serious threat to the world (6). 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 (2).

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. 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 (3,4).

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

**Please refer disclaimer Overleaf.**

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 Agar Plate w/ Vancomycin in 90 mm disposable plate.

### Colour

Light amber coloured medium

### Quantity of medium

25 ml of medium in 90 mm Petri plate

### Reaction

7.20-7.60

### Sterility test

Passes release criteria

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<i>Enterococcus faecalis</i> (VRE) ATCC 51299 (00085*)	50-100	luxuriant	>=50%
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	50-100	inhibited	0%
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	inhibited	0%

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 (3,4).

## Reference

- Conant N. F., 1950, Diagnostic Procedures and Reagents, 3rd Ed., APHA Inc.
- CDC Preventing the spread of vancomycin resistance: a report from the Hospital Infection Control Practices Advisory Committee(1994). Fed Regist. May17.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook 2<sup>nd</sup> Edition.
- 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.

5. Mara D., Horan NJ : The Handbook of water, wastewater and microbiology, Amsterdam, The Netherlands, Academic Press ; 2003.
6. Mascini EM, Bonten MJ : Vancomycin- resistant enterococci : consequences for therapy and infection control. Clin. Microbiol Infect.2005,11 (Suppl.4) :43-56.
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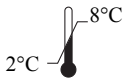
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In vitro diagnostic medical device



CE Marking



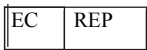
Storage temperature



Do not use if package is damaged



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