Vancomycin Resistant Enterococci (VRE) Broth Base

M1762

Intended Use:

Recommended for selective enrichment of Enterococci.

Composition**

Ingredients	Gms / Litre
BHI Powder	12.500
HI powder	5.000
Proteose Peptone	10.000
Dextrose (Glucose)	2.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 37.0 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of 2 vials of Meropenem Supplement (FD262). Mix well and dispense as desired.

Principle And Interpretation

Enterococci usually occur as the normal flora of the intestines of mammal. The presence of enterococci is an indication of faecal contamination (1). The increasing development of multiple resistance towards antibiotics particularly vancomycin by enterococci is a serious threat to the world (2). 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 resistanct Enterococci broth is formulated as per the recommendations of Centre for Disease Control and Prevention (CDC) for the enrichment of *Enterococcus* species including vancomycin resistant enterococci (3). BHI Powder, HI powder and proteose peptone supplies nutrients to the medium. Dextrose serves as an energy source. Sodium chloride maintains the osmotic balance while disodium phosphate buffers the medium. Meropenem Supplement (FD262) added to the medium helps to suppress the contaminating flora especially gram-negative bacteria.

Type of specimen

Clinical samples - faeces

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional 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. Further biochemical and serological tests must be carried out for further identification.

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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate.

Reaction

Reaction of 3.7% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

Cultural characteristics observed with added Meropenem supplement (FD262), after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Escherichia coli ATCC 25922 (00013)*	>=10^4	inhibited
Pseudomonas aeruginosa ATCC 27853 (00025)*	>=10^4	inhibited
Salmonella Typhimurium *ATCC 14028 (00031*)*	>=10^4	inhibited
Enterococcus faecalis ATCC 29212 (00087)*	>=10^4	inhibited
Enterococcus faecalis ATCC 51299 (00085*)	50-100	Good-luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. 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 (4,5).

Reference

1.Mascini EM, Bonten MJ : Vancomycin- resistant enterococci : consequences for therapy and infection control. Clin Microbiol Infect.2005,11 (Suppl.4) :43-56.
2.Mara D., Horan NJ : The Handbook of water, wastewater and microbiology, Amsterdam, The Netherlands, Academic Press ; 2003.
3.CDC Preventing the spread of vancomycin resistance: a report from the Hospital Infection Control Practices Advisory Committee(1994). Fed Regist. May17.
4.Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
5.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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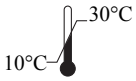
IVD	In vitro diagnostic medical device
CE	CE Marking
	Storage temperature
	Do not use if package is damaged
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