Vancomycin Resistant Enterococci (VRE) Agar Base M1763

Intended Use:

Recommended for selective isolation of vancomycin resistant Enterococci.

Composition**

Ingredients	g / L
Tryptone	20.000
Yeast Extract	5.000
Sodium chloride	5.000
Sodium citrate	1.000
Aesculin	1.000
Ferric ammonium citrate	0.500
Sodium azide	0.150
Agar	10.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 42.65 grams in 1000 ml purified/ distilled water. Heat to boiling 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 Van 3 Selective Supplement(FD261) and 1 vial of MER Selective Supplement(FD262). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Enterococci usually occur as the normal flora in the intestines of mammals. 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 Agar is formulated as per the recommendations of Centre for Disease Control and Prevention (CDC) for the selective isolation of vancomycin resistant enterococci (3).

Tryptone and yeast extract provides nitrogeneous, carbonaceous compounds and other essential growth nutrients to the medium. Sodium chloride maintains the osmotic balance. Enterococci species hydrolyze esculin to glucose and esculetin. The latter combines with ferric ions of ferric ammonium citrate to form a dark brown or black complex visualized as a zone of black precipitate around the colonies. Sodium azide inhibits most of the accompanying microflora. Van 3 Selective Supplement(FD261) helps in the selective isolation of vancomycin resistant enterococci from other enterocci. MER Selective 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

Gelling

Firm, comparable with 1.0% Agar gel

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 4.27% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH

6.80-7.20

Cultural Response

Cultural characteristics observed with added Van 3 Selective Supplement (FD261) and MER Selective Supplement (FD262), after an incubation at 35 - 37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Esculin Hydrolysis
Enterococcus faecalis ATCC 29212 (00087*)	>=10^4	inhibited	0%	negative reaction
Enterococcus faecalis NCTC 12201	50-100	luxuriant	>=50%	positive reaction, blackening of medium
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	
Salmonella Typhimurium ATCC 14028 (00031*)	>=10^4	inhibited	0%	
Pseudomonas aeruginosa ATCC 27853 (00025*)	>=10^4	inhibited	0%	
Enterococcus faecium NCTC 12202	50-100	luxuriant	>=50%	positive reaction, blackening of medium
Enterococcus faecalis ATCC 51299 (00085*)	50-100	luxuriant	>=50%	positive reaction, blackening of medium

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

Revision : 06/2024

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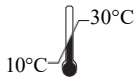
IVD ***In vitro* diagnostic medical device**



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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