

Vancomycin Resistant Enterococci (VRE) Agar Plate

MP1763

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
Van 3 Selective Supplement (FD261)	2 vial
Vancomycin	3mg
MER Selective Supplement (FD262)	2 vial
Meropenem	1mg
Agar	10.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

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

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 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 (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 esculin. 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 enterococci. 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. 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. 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

Sterile Vancomycin Resistant Enterococci (VRE) Agar Plate in 90 mm disposable plates with smooth surface and absence of black particles/cracks/bubbles

Colour of medium

Light amber coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

pH

6.80-7.20

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	Esculin Hydrolysis
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	$\geq 10^3$	inhibited	0%	negative reaction
<i>Enterococcus faecalis</i> NCTC 12201	50-100	luxuriant	$\geq 50\%$	positive reaction, blackening of medium
<i>Escherichia coli</i> ATCC 25922 (00013*)	$\geq 10^3$	inhibited	0%	
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	$\geq 10^3$	inhibited	0%	
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	$\geq 10^3$	inhibited	0%	
<i>Enterococcus faecium</i> NCTC 12202	50-100	luxuriant	$\geq 50\%$	positive reaction, blackening of medium
<i>Enterococcus faecalis</i> ATCC 51299 (00085*)	50-100	luxuriant	$\geq 50\%$	positive reaction, blackening of medium

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 (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.

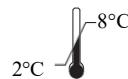
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IVD *In vitro* diagnostic
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Storage temperature



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CE Marking



**Do not use if
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