



# Technical Data

## HiCrome VRE Agar Base

M1830

HiCrome VRE Agar Base is recommended for identification of Vancomycin Resistant Enterococci from clinical specimens

### Composition\*\*

Ingredients	Gms / Litre
Peptone special	25.000
Chromogenic mixture	0.450
Sodium chloride	5.000
Buffering agent	1.250
Salt mixture	4.250
Agar	15.000
Final pH ( at 25°C)	6.5±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 50.95 grams in 1000 ml 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 the rehydrated contents of two vials of HiCrome VRE Agar Supplement (FD277). Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Enterococci are the common habitants of the normal flora residing in the intestines of mammals (1). Vancomycin Resistant Enterococci are the group of Enterococci that have developed resistance towards many antibiotics particularly vancomycin. Enterococcal infections that result in human disease can be fatal, particularly those caused by strains of vancomycin-resistant enterococci (VRE) (2). Early detection of VRE is important to prevent the emergence of vancomycin resistant in *Enterococcus faecalis*.

VRE can be transmitted from person to person, especially in a hospital or chronic-care facility. Microscopic amounts of fecal material from an infected or colonized patient can contaminate the hospital environment and be a reason for the spread of infection. There are many traditional media for the detection of VRE which includes Vancomycin Resistant Enterococci Broth Base/ Agar or Bile Esculin Agar supplemented with vancomycin

Peptones in the medium supplies the necessary nutrients and vitamins required for the growth of microorganisms. Sodium chloride maintains the osmotic balance. Buffering agents provides buffering to the medium. *Enterococcus faecalis* cleaves the chromogenic substrate in the medium to produce blue coloured colonies, which are clearly visible against the opaque background. The supplement added to the medium allows the selective isolation of Vancomycin Resistant Enterococci. This medium can be inoculated directly from screening swab, isolated colony prepared as a liquid suspension approximately equivalent to 0.5 McFarland turbidity.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel.

#### Colour and Clarity of prepared medium

Off white coloured opaque gel forms in Petri plates.

#### Reaction

Reaction of 5.1% w/v aqueous solution at 25°C. pH : 6.5±0.2

#### pH

6.30-6.70

**Cultural Response**

Cultural characteristics observed with added HiCrome VRE Agar Supplement (FD277), after an incubation at 35-37°C for 24-48 hours.

**Cultural Response**

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<b>Cultural Response</b>				
<i>Enterococcus faecalis</i> (VRE) 50-100 ATCC®51299		luxuriant	≥50%	bluish green
<i>Enterococcus faecalis</i> ATCC 29212	≥10 <sup>3</sup>	inhibited	0%	
<i>Staphylococcus aureus</i> ATCC 25923	≥10 <sup>3</sup>	inhibited	0%	

**Storage and Shelf Life**

Store dehydrated powder and prepared medium at 2-8°C in tightly capped container. Use before expiry date on the label.

**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

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