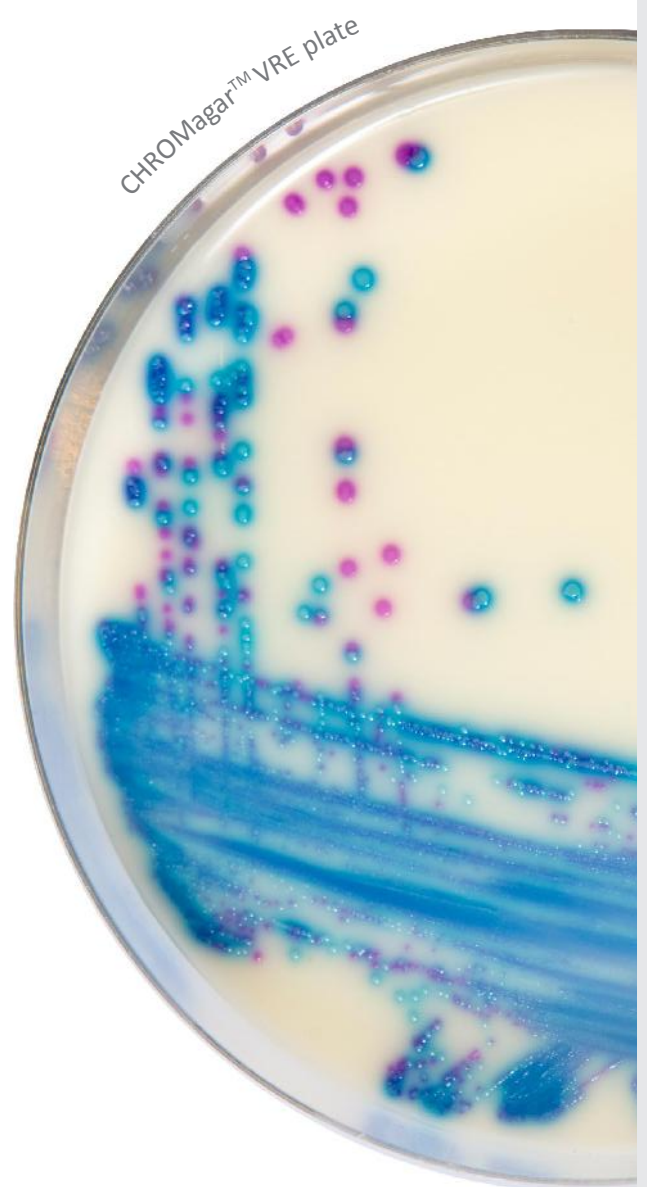


# CHROMagar™ VRE



## MEDIUM PURPOSE

Chromogenic medium for detection of Van A / Van B VRE *faecalis* & *faecium*.

There are two types of vancomycin resistance in enterococci. The first type is intrinsic resistance (mostly VanC type but also VanD, VanE, VanF etc) found in *E.gallinarum* and *E.casseliflavus/E.flavescens* and demonstrates a low-level resistance to vancomycin. The second type of vancomycin resistance in enterococci is acquired resistance (VanA & VanB types), mostly seen in *E.faecium* and *E.faecalis*. Therefore, to avoid the spread of this resistance to more virulent pathogens (*S.aureus*, for instance) it is crucial to promptly detect the presence of any of these two species in the patient, and accurately differentiate them from other Enterococci.

## COMPOSITION

The product is composed of a powder base (B) and 1 supplement (S).

Product	=	Base (B)	+	Supplement (S)
Total g/L		67.3 g/L		0.06 g/L
Composition g/L		Agar 15.0 Peptones and yeast extract 20.0 Salts 5.0 Chromogenic mix 27.3		Selective mix 0.06
Aspect		Powder Form		Powder Form
STORAGE		15-30°C		2-8°C
FINAL MEDIA pH		6.9 +/- 0.2		

## PREPARATION (Calculation for 1L)

### Step 1

Preparation of the base  
CHROMagar  
VRE Base (B)

- Disperse slowly 67,3g of powder base in 1L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boil (100°C) while swirling or stirring regularly.  
DO NOT HEAT TO MORE THAN 100°C. DO NOT AUTOCLAVE AT 121°C.

**Warning 1:** If using an autoclave, do so without pressure.

**Advice 1:** For the 100°C heating step, mixture may also be brought to a boil in a microwave oven: after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).

- Cool in a water bath to 45-50°C. Swirl or stir gently to homogenize.

### Step 2

Preparation of the  
Supplement (S)

- Prepare a stock solution of the CHROMagar VRE supplement:  
Add 60mg to 1ml (0.5ml ethanol / 0.5ml sterile purified water).
- Swirl well until complete dissolution.

**Advice 2:** This CHROMagar VRE supplement stock solution should be used immediately after preparation, or can be stored at -20°C and used within one month.

#### Final Media HELPING CALCULATION

1 L	60mg into 0.5ml of ethanol + 0.5 ml of sterile water
5 L	300mg into 2.5ml of ethanol + 2.5 ml of sterile water
25L	1,5g into 12.5ml of ethanol + 12.5 ml of sterile water

### Step 3

Mixing of the  
prepared base (B)  
and the prepared  
supplement (S)

- Add 1ml of CHROMagar VRE supplement solution to CHROMagar VRE base cooled at 45-50°C (final 60 mg/L).
- Swirl gently to homogenize.
- Pour into sterile Petri dishes
- Let it solidify and dry.

#### Final Media HELPING CALCULATION

1 L	Add 1ml of supplement to the prepared base
5 L	Add 5ml of supplement to the prepared base
25L	Add 25ml of supplement to the prepared base

## Storage

- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to one month under refrigeration (2/8°C) if properly prepared and protected from light and dehydration.

## INOCULATION

Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate
- Incubate in aerobic conditions at 37°C for 24 hours.

### Typical Samples

e.g. stools samples  
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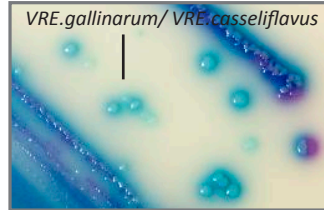
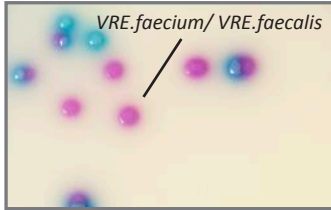
possible enrichment step  
Direct streaking  
or spreading technique

# CHROMagar™ VRE

## INTERPRETATION

Microorganism	Typical colony appearance
VRE. <i>faecium</i> VRE. <i>faecalis</i>	→ pink to mauve
VRE. <i>gallinarum</i> VRE. <i>casseliflavus</i>	→ blue or inhibited
Other Gram positive bacteria	→ inhibited
Gram negative bacteria	→ inhibited
Yeasts and mould	→ mostly inhibited

### Typical colony appearance



The pictures shown are not contractual.

## PERFORMANCE & LIMITATIONS

- Definite identification may require additional testing.
- Some rare strains of *Lactobacilli*, *Pediococcus* can sometimes appear as pinpoint mauve colonies. However, they can be differentiated with PYR test: PYR(+) --> VRE ; PYR(-) --> *Lactobacilli*, *Pediococcus*.
- Further to 24h incubation, some rare strains of *E.gallinarum* can sometimes appear as mauve colonies.
- Vancomycine R-type should be determined and confirmed by further testing

## QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms. Good preparation of the medium can be tested, isolating the ATCC strains below:

Microorganism	Typical colony appearance
VRE. <i>faecalis</i> ATCC® 51299	→ mauve, small
<i>E.faecalis</i> ATCC® 29212	→ inhibited
<i>E.coli</i> ATCC® 25922	→ inhibited
<i>C.tropicalis</i> ATCC® 1369	→ inhibited
<i>S.aureus</i> ATCC® 25923	→ inhibited
<i>E.casseliflavus</i> ATCC® 700327	→ inhibited
<i>E.gallinarum</i> ATCC® 49573	→ inhibited

## WARNINGS

- Do not use plates if they show any evidence of contamination or any sign of deterioration.
- Do not use the product beyond its expiry date or if product shows any evidence of contamination or any sign of deterioration.
- For *in vitro* diagnostic use. This laboratory product should be used only by trained personnel in compliance with good laboratory practices.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Unappropriate storage may affect the shelf life of the product.
- Recap the bottles/vials tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- For a good microbial detection: collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.

## DISPOSAL OF WASTE





After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.


## REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.

Web link: <http://www.chromagar.com/publication.php>

## IFU/LABEL INDEX

-  Quantity of powder sufficient for X liters of media
-  Expiry date
-  Required storage temperature
-  Store away from humidity

Pack Size	Ordering References	Base	Supplement
5000 ml 	VR952	VR952(B) Weight: 336,5gr	VR952(S) Weight: 0.3gr
25L 	VR953-25	VR953-25(B) Weight: 1682,5gr	VR953-25(S) Weight: 1.5gr

### Need some Technical Documents?

Available for download on [www.CHROMagar.com](http://www.CHROMagar.com)

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

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