TM 1642 - VRE AGAR BASE (VANCOMYCIN RESISTANT ENTEROCOCCI AGAR)

INTENDED USE

For the isolation of Vancomycin Resistant Enterococci (VRE) and High Level Aminoglycoside Resistant Enterococci (HLARE) from clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Enterococci usually occur as the normal flora in the intestines of mammals. The presence of enterococci is an indication of faecal contamination. The increasing development of multiple resistance towards antibiotics particularly vancomycin by enterococci is a serious threat to the world. 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.

COMPOSITION

Ingredients	Gms / Ltr
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

PRINCIPLE

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. Vancomycin Supplement helps in the selective isolation of vancomycin resistant enterococci from other enterocci. Meropenem Supplement added to the medium helps to suppress the contaminating flora especially gram-negative bacteria.

INSTRUCTION FOR USE

- Dissolve 42.65 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add rehydrated contents of 2 vials of Vancomycin Supplement and 1 vial of Meropenem Supplement.
- Mix well and pour into sterile Petri plates

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed with added Vancomycin Supplement and Meropenem Supplement, after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Esculin Hydrolysis	Incubation Temperature	Incubation Period
Enterococcus faecalis	*29212*	>=10^3	Inhibited	0%	Negative reaction	35 - 37°C	24-48 Hours
Enterococcus faecalis	*12201*	50-100	Luxuriant	>=70%	Positive reaction, blackening of medium	35 - 37°C	24-48 Hours
Escherichia coli	*25922*	>=10^3	Inhibited	0%	-	35 - 37°C	24-48 Hours
Salmonella Typhimurium	*14028*	>=10^3	Inhibited	0%	-	35 - 37°C	24-48 Hours
Pseudomonas aeruginosa	*27853*	>=10^3	Inhibited	0%	-	35 - 37°C	24-48 Hours
Enterococcus faecium	*12202*	50-100	Luxuriant	>=70%	Positive reaction, blackening of medium	35 - 37°C	24-48 Hours
Enterococcus faecalis	*51299*	50-100	Luxuriant	>=70%	Positive reaction, blackening of medium	35 - 37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

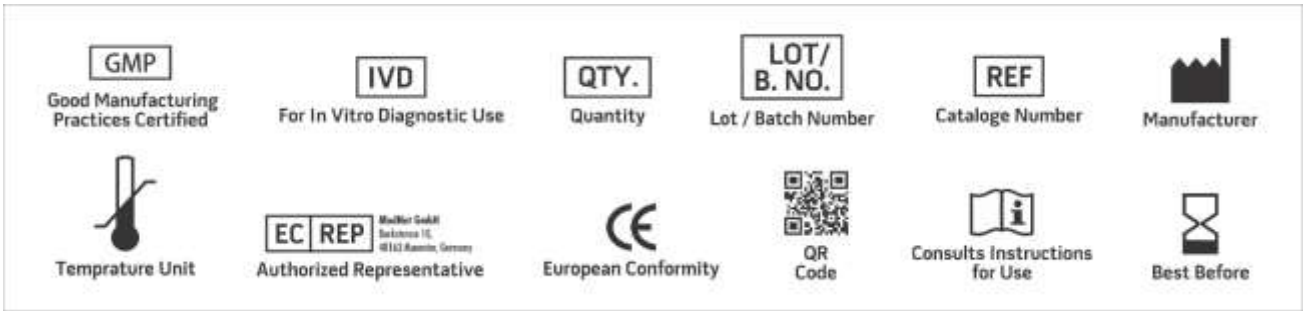
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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