VP Medium

M662

Intended Use:

Used for isolation of *Vibrio parahaemolyticus*.

Composition**

Ingredients	g/ L
Peptone	10.000
Yeast extract	5.000
Sodium taurocholate	5.000
Sodium thiosulphate	10.000
Sodium chloride	20.000
Sodium lauryl sulphate (SLS)	0.200
Sodium citrate	10.000
Sucrose	20.000
Bromo thymol blue	0.040
Thymol blue	0.040
Agar	20.000
Final pH (at 25°C)	8.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 100.28 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE.** Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Vibrios's are short, often curved, gram-negative rods that are motile by means of a single polar sheathed flagellum. Their growth is stimulated by Na+ ions, which is an absolute requirement for most species. *Vibrio parahaemolyticus*, a halophilic *Vibrio*, is responsible worldwide for outbreaks of gastroenteritis associated with eating many kinds of contaminated sea foods. It has been isolated from raw shellfish and other fish in the warm coastal and estuarine waters (1).

VP Medium is prepared according to formula of De et al (2) and is recommended for selective isolation of *Vibrio* species, especially *V. parahaemolyticus* from clinical specimens, foodstuffs, and environmental sample (3).The medium contains peptone and yeast extract, which provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Sucrose is added as a fermentable sugar. Sodium citrate, sodium lauryl sulphate, sodium taurocholate and sodium thiosulphate as well as high alkalinity of the medium inhibit most of the contaminating organisms. Bromothymol blue and thymol blue are the pH indicators. The alkaline pH of the medium and higher concentration of sodium chloride improves the recovery of *Vibrio parahaemolyticus*. Sucrose fermenting organisms like *V. cholerae* and *V. alginolyticus* produces yellow coloured colonies. *Vibrio parahaemolyticus* is a sucrose non-fermenting organism and produces blue-green colonies, as does *V. vulnificus.*

Type of specimen

Clinical samples - faeces samples; Food samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (6). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use. 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.
3.Occasionally a few enteric sucrose non-fermenters may exhibit growth e.g. *Proteus* group (5).

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 greenish yellow homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Bluish coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 10.0% w/v aqueous solution at 25°C. pH : 8.6±0.2

pH

8.40-8.80

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Enterococcus faecalis ATCC 29212 (00087*)	50-100	poor	<=10%	yellow
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%	
Shigella flexneri ATCC 12022 (00126*)	>=10^4	inhibited	0%	
Vibrio cholerae ATCC 15748	50-100	good-luxuriant	>=50%	yellow
Vibrio parahaemolyticus ATCC 17802 (00037*)	50-100	good-luxuriant	>=50%	bluish-green
Vibrio vulnificus ATCC 27562	50-100	good-luxuriant	>=50%	greenish yellow

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. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology,1996, 14th Edition, Churchill Livingstone.
2. De S. P., Sen P., De C., Ghosh A., Pal S. C., 1977, Indian J. Med. Res. 66,398.

3.MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol. 1, Williams and Wilkins, Baltimore
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.
6.Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.

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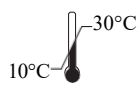
IVD ***In vitro* diagnostic medical device**



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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