

TM 908 - VP MEDIUM

INTENDED USE

For isolation of *Vibrio parahaemolyticus*.

PRODUCT SUMMARY AND EXPLANATION

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.

VP Medium is prepared according to formula of De et al and is recommended for selective isolation of *Vibrio* species, especially *V. parahaemolyticus* from clinical specimens, foodstuffs, and environmental sample.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	10.000
Yeast extract	5.000
Sodium taurocholate	5.000
Sodium thiosulphate	10.000
Sodium chloride	20.000
Sodium lauryl sulphate	0.200
Sodium citrate	10.000
Sucrose	20.000
Bromo thymol blue	0.040
Thymol blue	0.040
Agar	20.000

PRINCIPLE

The medium contains peptic digest of animal tissue 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*. Occasionally a few enteric sucrose non-fermenters may exhibit growth e.g. *Proteus* group.

INSTRUCTION FOR USE

- Dissolve 100.28 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely, do not autoclave.
- Mix well and pour into sterile Petri plates

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to greenish yellow homogeneous free flowing powder.
Appearance of prepared medium : Bluish coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 8.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Enterococcus faecalis</i>	29212	50-100	Poor	10-20%	Yellow	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	≥10 ³	Inhibited	0%	-	35-37°C	18-24 Hours
<i>Shigella flexneri</i>	12022	≥10 ³	Inhibited	0%	-	35-37°C	18-24 Hours
<i>Vibrio cholerae</i>	15748	50-100	Good-luxuriant	≥50%	Yellow	35-37°C	18-24 Hours
<i>Vibrio parahaemolyticus</i>	17802	50-100	Good-luxuriant	≥50%	Bluish-green	35-37°C	18-24 Hours
<i>Vibrio vulnificus</i>	27562	50-100	Good-luxuriant	≥50%	Greenish yellow	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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.

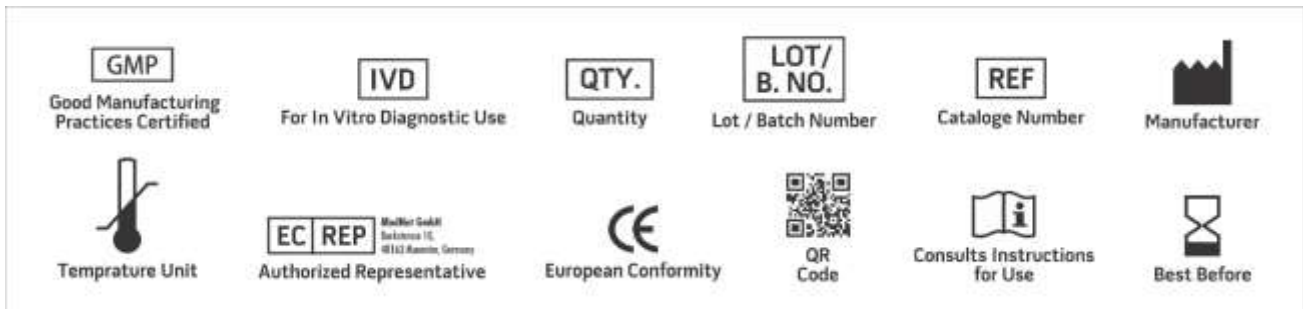
DISPOSAL



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

REFERENCES

1. 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.



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

***For Lab Use Only**
Revision: 08 Nov., 2019