

Product Data Sheet

VP MEDIUM

Product No. GB-DCM-00028-1A

INTENDED USE

For isolation of *Vibrio parahaemolyticus*.

PRODUCT SUMMARY

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.

Product Specifications

| 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 nonfermenters 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

| 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% | - | 35-37°C | 18-24 Hours |
| <i>Escherichia coli</i> | 25922 | 50-100 | Inhibited | 0% | - | 35-37°C | 18-24 Hours |
| <i>Shigella flexneri</i> | 12022 | 50-100 | 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 | Yellow | Yellow |
| <i>Vibrio vulnificus</i> | 27562 | 50-100 | Good-Luxuriant | ≥50% | Greenish yellow | Yellow | Yellow |



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.

This product is for research use only.