



PRODUCT SPECIFICATION SHEET

VP Medium (DM1337)

Intended Use

VP Medium (DM1337) is recommended 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. Sodium ions which are an absolute requirement for most species stimulate the growth of these organisms. *Vibrio parahaemolyticus*, a halophilic *Vibrio*, is responsible worldwide for outbreaks of gastroenteritis. Consumption of various kinds of contaminated sea foods is the prime cause of the infection by *V.parahaemolyticus*. It has been isolated from raw shellfish and other fish in the warm coastal and estuarine waters.⁽¹⁾ De et al⁽²⁾ formulated VP Medium for selective isolation of *Vibrio* species, especially *V.parahaemolyticus* from clinical specimens, foodstuffs, and environmental sample.⁽³⁾

Principles of the Procedure

VP Medium contains peptic digest of animal tissue and yeast extract, which provide nitrogenous compounds, vitamin B complex and other essential nutrients required for growth of organisms. Sucrose is added as a fermentable carbohydrate. 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*.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Yeast extract	5.00
Sodium taurocholate	5.00
Sodium thiosulphate	10.00
Sodium chloride	20.00
Sodium lauryl sulphate	0.20
Sodium citrate	10.00
Sucrose	20.00
Bromo thymol blue	0.04
Thymol blue	0.04
Agar	20.00
Final pH: 8.6 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 100.28 grams of medium in one liter of distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. DO NOT AUTOCLAVE.
4. Mix well and pour into sterile petri plates.





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Quality Control Specifications

Dehydrated Appearance	Cream to greenish yellow homogeneous free flowing powder
Prepared Medium	Bluish coloured clear to slightly opalescent gel forms in Petri plates.
Reaction of 2.0% Solution	pH : 8.6 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 2.0% Agar gel.

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

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth	Recovery	Colour of colony
1.	<i>Enterococcus faecalis</i> ATCC 29212	50 - 100	poor	<=10%	yellow
2.	<i>Escherichia coli</i> ATCC 25922	>=10 ³	inhibited	0%	--
3.	<i>Shigella flexneri</i> ATCC 12022	>=10 ³	inhibited	0%	--
4.	<i>Vibrio cholerae</i> ATCC 15748	50 - 100	good-luxuriant	>=50%	yellow
5.	<i>Vibrio parahaemolyticus</i> ATCC 17802	50 - 100	good-luxuriant	>=50%	bluish-green
6.	<i>Vibrio vulnificus</i> ATCC 27562	50 - 100	good-luxuriant	>=50%	greenish yellow

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for standard test procedures.

Results

- Sucrose fermenting organisms like *V. cholera* and *V. alginolyticus* produces yellow coloured colonies.
- Vibrio parahaemolyticus* is a sucrose non-fermenting organism and which produces blue-green colonies, as does *V. vulnificus*.
- Occasionally a few enteric sucrose non-fermenters may exhibit growth e.g. *Proteus* group

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

- For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
- Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : VP Medium

Product Code : DM1337

Available Pack sizes : 500gm



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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.

Further Information

For further information please contact your local MICROMASTER Representative.



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