

## TM 2412 – VP MEDIUM FOR LISTERIA (ISO 11290-2-2017)

### INTENDED USE

Recommended for the distinction of *Listeria* species from other species based on Voges-Proskauer test from food samples.

### PRODUCT SUMMARY AND EXPLANATION

Methyl Red and Voges-Proskauer test are among the two various tests used in the biochemical identification of bacterial species. These tests were originally studied by Voges, Proskauer and subsequently by Clark and Lubs to differentiate between members of the coli- aerogens group. Both the tests are based on the detection of specific breakdown products of carbohydrate metabolism. This medium is specified by ISO for the differentiation of *Listeria* species from other bacteria based on VP Test from food and animal feeds, environmental samples in the area of food production and food handling.

### COMPOSITION

Ingredients	Gms / Ltr
Peptone	7.000
Dextrose (Glucose)	5.000
Sodium chloride	5.000

### PRINCIPLE

The medium consists of Peptone which is the source of nitrogen and carbon, long chain amino acids, vitamins and other essential nutrients. Dextrose is the energy source. Sodium chloride maintains the osmotic equilibrium of the medium.

### INSTRUCTION FOR USE

- Dissolve 17.0 grams in 950 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Distribute in test tubes in 3 ml amounts and Sterilize by autoclaving at 10 psi pressure (115°C) for 20 minutes.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Light yellow coloured clear solution without any precipitate.  
**pH (at 25°C)** : 6.9±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Urease	Incubation temperature	Incubation Period
<i>Listeria monocytogenes</i>	35152	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours



<i>Listeria monocytogenes</i>	13932	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria innocua</i>	33090	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria grayi</i>	19120	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria ivanovii</i>	19119	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria monocytogenes</i>	19112	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria seeligeri</i>	35967	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Listeria welshimeri</i>	43549	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Enterococcus faecalis</i>	19433	50-100	Luxuriant	Positive reaction, bright red colour	30-32°C	18-48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25922	50-100	Luxuriant	Variable reaction	30-32°C	18-48 Hours
<i>Staphylococcus aureus subsp. aureus</i>	6538	50-100	Luxuriant	Variable reaction	30-32°C	18-48 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.

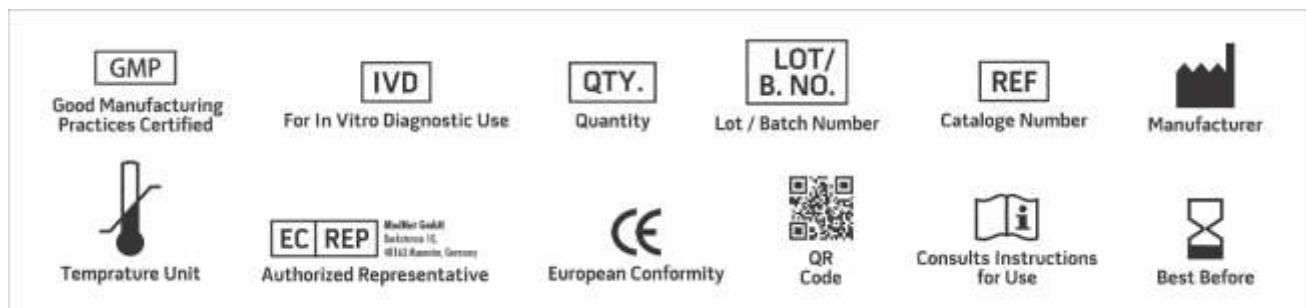
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

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

### REFERENCES

1. Clark W. M. and Lubs H. K., 1915, J. Infect. Dis., 17:160.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. 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.
4. Microbiology of the food chain- Horizontal method for the detection and enumeration of Listeria and Listeria spp. Part-1. Detection method ISO 11290-1 : 2017
5. Microbiology of the food chain- Horizontal method for the detection and enumeration of Listeria and Listeria spp. Part-2 Enumeration method. ISO 11290-2: 2017.
6. Voges O. and Proskauer B., 1898, Z. Hyg. Infektionskr., 28:20.



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

**\*For Lab Use Only**  
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