

TM 2421 - VOGES PROSKAUER MEDIUM, MODIFIED

INTENDED USE

For performance of the Voges- Proskauer test in differentiation of *Bacillus cereus* in accordance with FDA BAM 1998.

PRODUCT SUMMARY AND EXPLANATION

Voges Proskauer Medium, Modified is recommended for the performance of the Voges- Proskauer test in differentiation of *Bacillus cereus* in accordance with FDA BAM, 1998. Methyl Red and Voges-Proskauer tests are among the two various tests used in the biochemical identification of bacterial species. These tests were originally studied by Voges and 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. In MR-VP Broth, after 18-24 hours of incubation, fermentation produces acidic metabolic byproducts. MR-negative organisms further metabolize the initial fermentation products by decarboxylation to produce neutral acetyl methylcarbinol (acetoin), which results in decreased acidity in the medium and raises the pH towards neutrality (pH 6.0 or above). In the presence of atmospheric oxygen and alkali, the neutral end products, acetoin and 2, 3-butanediol, are oxidized to diacetyl, which react with creatine to produce a red colour.

Inoculate 5 ml medium with 3 mm loopful of culture and incubate tubes 48 ± 2 h at 35°C. Test for production of acetylmethyl-carbinol by pipetting 1 ml culture into 16 × 125 mm test tube and adding 0.6 ml of 5% alpha-naphthol solution and 0.2 ml 40% potassium hydroxide. Shake, and add a few crystals of creatine. Observe results after holding for 1 h at room temperature. Test is positive if pink or violet color develops.

COMPOSITION

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

PRINCIPLE

Proteose peptone and dextrose provide necessary growth requirements to the medium and sodium chloride maintains the osmotic equilibrium.

INSTRUCTION FOR USE

- Dissolve 17 grams in 1000 ml of purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Distribute in test tubes in 10 ml amounts and sterilize by autoclaving at 15 psi pressure (121°C) for 10 minutes.
- Cool to 45-50°C.

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)	: 6.5±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	VP Test	Incubation Temperature	Incubation Period
<i>Bacillus cereus</i>	10876	50-100	Luxuriant	Positive Reaction, eosin pink / red colour within 2-5 minutes	35°C	46-50 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.







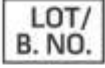


Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Barry A. L., Bernsohn K. L., Adams A. B., Thrup L. D., Appl. Microbiol., 1970, 20 (6), 866-870.
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. MacFaddin J. F., 2000, Biochemical tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.
5. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
6. Voges O. and Proskauer B., 1898, Z. Hyg. Infektionskr., 28:20.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

*For Lab Use Only
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