

Technical Information

Purple MiVeg Agar Base

Product Code : VM1098

Application:- Purple MiVeg Agar Base is recommended for the preparation of carbohydrate media used in fermentation studies for the cultural identification of pure cultures of enteric and other microorganisms.

Composition

Ingredients	Gms / Litre
MiVeg special peptone	10.00
MiVeg extract	1.00
Sodium chloride	5.00
Bromo cresol purple	0.02
Agar	15.00
Final pH (at 25°C)	6.8 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Purple MiVeg Agar Base is prepared by adding MiVeg special peptone and MiVeg extract instead of Special peptone and Beef extract thus making the medium free from BSE/TSE risks. Purple MiVeg Agar Base is the modification of Purple Agar Base which was originally formulated by Vera (1).

MiVeg extract and MiVeg special peptone provide necessary nutrients especially nitrogenous compound, required for the growth of organisms. Sodium chloride maintains the osmotic balance of the medium. Bromo cresol purple is the pH indicator which turns yellow at acidic pH. The acid produced during carbohydrate fermentation causes bromo cresol purple, to turn yellow. It is recommended (3) to add carbohydrate in 1% concentration to avoid possible reversion reactions except glucose (dextrose). If the carbohydrate containing medium is being sterilized by autoclaving, precautions should be taken to use less heat required for sterilization to prevent carbohydrate

Methodology

Suspend 31 grams of powder media in 1000 ml distilled water. Add 5 - 10 grams of the carbohydrate to be tested. Mix thoroughly and heat to boiling to dissolve the medium completely. Dispense in tubes as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Alternatively sterilize the basal medium prepared using 900 ml distilled water and add 100 ml separately sterilized 5 - 10% solution of the desired carbohydrate to it.

Quality Control

Physical Appearance

Greenish yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Purple coloured, clear gel forms as slant in test tubes.

Reaction

Reaction of 3.1% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C.

pH Range

6.6 - 7.0

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Without Carbohydrate		With 1% Dextrose	
			Acid	Gas	Acid	Gas
<i>Neisseria meningitidis</i> (13090)	10 ² -10 ³	good-luxuriant	—	—	+	-
<i>Escherichia coli</i> (25922)	10 ² -10 ³	luxuriant	—	—	+	+
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	luxuriant	—	—	+	-
<i>Listeria monocytogenes</i> *(19112)	10 ² -10 ³	luxuriant	—	—	+	-

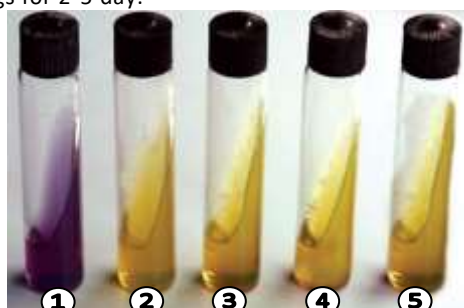
Key : Acid + = yellow colour

* = fermentative metabolism

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 day.



**VM1098 Purple MiVeg Agar
(with 1% dextrose)**

1. Control
2. *Neisseria meningitidis*
3. *Escherichia coli*
4. *Staphylococcus aureus*
5. *Listeria monocytogenes*

Further Reading

1. Vera H.D., 1950, Am. J. Public Health, 40:1267.
2. Finegold and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.
3. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I Williams and Wilkins, Baltimore.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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