PRODUCT SPECIFICATION SHEET

Malachite Green Broth (DM466)

Intended Use
Malachite Green Broth (DM466) is recommended for selective enrichment of *Pseudomonas aeruginosa.*

Product Summary and Explanation
Pseudomonas aeruginosa is a gram-negative common bacterium that can cause disease in animals, including humans. *Pseudomonas* species is an environmental organism found in soil and soil, water and on plants, including fruits and vegetables. *Pseudomonas aeruginosa* has the ability to survive in the aqueous environments like whirlpool bathwater, swimming pools etc.[1] Whirlpools with elevated temperature, reduced chlorine and increased amounts of organic matter provide ideal conditions for the growth of *P.aeruginosa*. *P. aeruginosa* is commonly isolated from whirlpool waters that is coliform-negative.[2] Habs and Kirschner designed Malachite Green Broth for the selective enrichment of *P. aeruginosa*.[3] It is also used for testing water samples as recommended by Schubert and Blum.[4]

Principles of the Procedure
Malachite Green Broth contains meat extract and peptic digest of animal tissue serve as sources of carbon, nitrogen and other essential nutrients required for bacterial metabolism. Dihydrogen potassium phosphate acts as a buffering agent. Malachite green makes the medium selective for *P.aeruginosa* while suppressing the growth of the accompanying flora. Depending upon the sample being tested the medium can also be used as a single strength medium by suspending 8.4 g/litre of medium.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	15.00
Meat extract	9.00
Dipotassium hydrogen phosphate	1.10
Malachite green	0.03
Final pH: 7.0 ± 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 25.13 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense into smaller vessels.
4. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

Quality Control Specifications

Dehydrated Appearance	Light yellow to greenish yellow homogeneous free flowing powder
Prepared Medium	Peacock blue coloured clear solution without any precipitate
Reaction of 2.51% Solution	pH : 7.0 ± 0.2 at 25°C
Gel Strength	Not Applicable

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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
1.	*Escherichia coli ATCC 25922*	>=10^3	inhibited
2.	*Pseudomonas aeruginosa ATCC 27853*	50-100	good-luxuriant

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

Test Procedure
Refer appropriate references for standard test procedures.

Results
Refer appropriate references and procedures for interpretation of results.

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

Packaging
Product Name : Malachite Green Broth
Product Code : DM466
Available Pack sizes : 500gm

References

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C. ,,
2. Hall N., 1984, UHL Lab Hotline 21: 9.
3. Habs H. and Kirschner K. H, 1943, Z.Hyg.,124:557-578.
4. Schubert R. and Blum U., 1974, Zbl. Bakt. Hyg .I. Orig. B.,158:583-587.

Further Information
For further information please contact your local MICROMASTER Representative.

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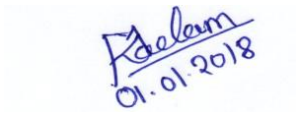	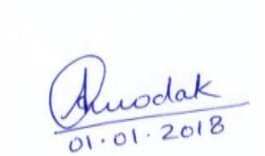	
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