PRODUCT SPECIFICATION SHEET

Modified CPLM Medium Base (Trichomonas Modified CPLM Medium Base) (DM1000)

Intended Use
Modified CPLM Medium Base (Trichomonas Modified CPLM Medium Base) (DM1000) is recommended for cultivation of *Trichomonas* species

Product Summary and Explanation
Trichomonas is a protozoan, similar to bacteria. *Trichomonas vaginalis* is a causative agent of trichomonalis, which is the most common protozoan infection in humans. It can infect the vagina and urethra in women, and sometimes the prostate gland in men. The duration of survival of *T. vaginalis* in transport medium is fairly limited; they die rapidly when dried on a swab. An alternative approach is to place the loaded swab promptly into a tube containing Trichomonas Culture Medium supplemented with horse serum, penicillin and streptomycin. Media for cultivation of *T. vaginalis* basically provide essential salts, nutrients, reducing agents and antibiotics to inhibit bacterial growth in the absence or in low concentration of oxygen.
The superiority of the culture procedure over the wet mount procedure for detecting the presence of trichomonads in clinical specimens was demonstrated by Williams[1], and Kean and Day.[2] Feinberg and Whittington[3], after a series of investigations, demonstrated the greater accuracy of the culture procedure for detecting trichomonads in clinical material and stressed that negative cultures are the best criteria for ascertaining the efficacy of therapy in these infections. Johnson and Trussell[4] recommended CPLM (Cystine-Peptone-Liver infusion- Maltose) Medium. This medium was further modified without agar and methylene blue.[5] This medium supports growth from a single protozoan under strictly anaerobic conditions. *T. vaginalis* is an anaerobe and contains no catalase. Under aerobic conditions, massive inocula are required.

Principles of the Procedure
Modified CPLM Medium Base contains peptic digest of animal tissue and liver digest which provide nitrogen and other essential nutrients required for growth. L-cystine hydrochloride acts as a reducing agent. Cystine is not essential when cultures are incubated anaerobically but it assists the maintenance of anaerobiosis. The antibiotics added helps to inhibit bacterial growth and supports growth from a single protozoon under strictly anaerobic conditions.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	32.00
Liver digest	20.00
Maltose	1.60
L-Cystine hydrochloride	2.40
Ringer's Solution 1/4th strength	1000.00 (QS)
Final pH: 6.0 ± 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 56 grams in 900 ml distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Distribute in bottles in 90 ml amounts and sterilize by autoclaving at 10 lbs pressure (115°C) for 10 minutes.
4. Cool to 50°C and aseptically add the following (per 90 ml of medium).
   i. Sterile inactivated Horse Serum 10 ml
   ii. Sterile Penicillin Streptomycin Solution 1 ml

iii. Sterile Nystatin Solution 1 ml

5. Mix thoroughly and distribute in suitable aliquots with sterile precautions.
   Penicillin Streptomycin solution
   Penicillin 1 x 105units
   Streptomycin 0.1 g
   Sterile distilled water 10 ml
   Nystatin Solution
   Nystatin 5 x 104 units
   Sterile distilled water 10 ml
6. The addition of antibiotics is not necessary for routine subcultures but is essential for clinical diagnostic cultures and for isolating axenic cultures.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Brownish yellow coloured clear solution without any precipitate
Reaction of 5.6% Solution	pH : 6.0 ± 0.2 at 25°C
Gel Strength	Not Applicable

Expected Cultural Response: Cultural characteristics observed after an incubation at 35-37°C for upto 4 days.

Sr. No.	Organisms	Results to be achieved
		Growth
1.	*Trichomonas vaginalis ATCC 30001*	good- luxuriant

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
Refer to appropriate references and test 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 : Modified CPLM Medium Base (Trichomonas Modified CPLM Medium Base)
Product Code : DM1000
Available Pack sizes : 500gm

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References

1. Williams, M. H., 1950, American Journal of Obst. and Gyn., 60:224-225.
2. Kean, B. H., and E. Day, 1954, American Journal of Obst. and Gyn.; 68:1510-1518.
3. Feinberg, J. G., and J. M. Whittington, 1957; Journal of Clinical Pathology, 10:327-329.
4. Johnson G. and Trussell R. E., 1943, Proc. Soc. Exp. Biol., 54:245.
5. Mackie and McCartneys Practical Medical Microbiology, 1989, 13th Ed. , Vol. 2, Churchill Livingstone, London.

Further Information

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DM1000PSS, QAD/FR/024,Rev.00