

Thayer Martin Agar Plate w/VCNT

MP413

Intended use

Recommended for selective isolation of Gonococci from pathological specimens.

Composition**

Ingredients	g / L
Peptone, special	23.000
Starch	1.000
Sodium chloride	5.000
Agar	13.000
Haemoglobin(FD022)	10.00g

Vitamins growth supplement (FD025)

Ingredients	Concentration
Part I	"
Vitamin B12	0.100mg
L-Glutamine	100mg
Adenine sulphate	10mg
Guaninine hydrochloride	0.300mg
p-Aminobenzoic acid (PABA)	0.130mg
L-Cystine	11mg
NAD (Coenzyme I)	2.500mg
Coccarboxylase	1mg
Ferric nitrate	0.200mg
Thiamine hydrochloride	0.030mg
Cysteine hydrochloride	259mg
Part II (Rehydrating fluid)	"
Dextrose	1g
Distilled water	10ml

V.C.N.T Supplement (FD024)	2 vials
Vancomycin (2x1.500 mg)	3.000 mg
Colistin methane sulphonate (2x3.750 mg)	7.500 mg
Trimethoprim (2x2.500 mg)	5.000 mg
Nystatin (2x 6250.000 units)	12500.000 units
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Principle And Interpretation

Carpenter and Morton reported an improved medium to isolate Gonococci in 24 hours (1). Later on the efficiency of GC medium supplemented with haemoglobin and yeast concentrate was demonstrated for isolating gonococci (2). Subsequently Thayer and Martin Medium was developed for the primary isolation of *Neisseria gonorrhoeae* and *Neisseria meningitidis* from specimens containing mixed flora collected from throat, vagina, rectum and urethra (3,4). Thayer and Martin (4) used Vancomycin, Colistin and Nystatin. Martin and Lester (5) used an additional antibiotic Trimethoprim to make the medium selective. Special peptone provides nutrients to the organisms while starch neutralizes the toxic fatty acids if present in the agar. Vancomycin and colistin inhibits gram-positive and gram-negative bacteria respectively (6). Nystatin inhibits fungi. This medium may inhibit *Haemophilus* species.

Type of specimen

Clinical samples : Throat, vaginal secretions, rectum, urethra, etc.

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the pack. Wear protective gloves/ protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. Some strains of *Capnocytophaga* species may grow on this medium when inoculated with oropharyngeal specimens.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within expiry period when stored at the recommended temperature.

Quality Control

Appearance

Sterile Thayer Martin Agar w/VCNT in 90 mm disposable plates with smooth surface and absence of black particles/ cracks/bubbles

Colour of medium

Chocolate brown coloured medium.

Quantity of medium

25 ml of medium in 90 mm disposable plates.

pH

6.80-7.20

Sterility Check

Passes release criteria

Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Escherichia coli</i> ATCC 25922 (00013*)	$\geq 10^3$	inhibited	0%	
<i>Neisseria gonorrhoeae</i> ATCC 19424	50-100	good-luxuriant	$\geq 50\%$	small, grayish-white to colourless, mucoid
<i>Neisseria meningitidis</i> ATCC 13090	50-100	good-luxuriant	$\geq 50\%$	medium to large, blue-gray, mucoid
<i>Proteus mirabilis</i> ATCC 25933	$\geq 10^3$	inhibited	0%	

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Reference

- 1.Carpenter and Morton, 1947, Proc. N.Y. State Assoc. Public Hlth. Labs., 27:58.
- 2.Carpenter et al, 1949, Am. J. Syphil. Gonorrh. Vener. Dis., 33:164.
- 3.Martin, Billings, Hackney and Thayer, 1967, Public Hlth. Rep., 82:361.
- 4.Thayer J. and Martin J.E. Jr., 1966, Public Health Rep., 81:559.
- 5.Martin J.E. Jr. and Lester A., 1971, HSMHA Hlth. Service Rep., 86(1):30.
- 6.MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
- 7.Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- 8.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.

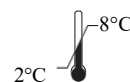
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