

Thayer-Martin Agar

Medium used for the isolation and cultivation of *Neisseria* spp.

• CONTENTS (Liter)

Proteose Peptone	15.0 g
Corn Starch	1.0 g
Dipotassium Phosphate	4.0 g
Monopotassium Phosphate	1.0 g
Sodium Chloride	5.0 g
Agar	13.0 g
Final pH = 7.2 ± 0.2 at 25°C	

• PROCEDURE

Suspend 39.0 G of powder in 930 mL of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 50 mL of Horse Blood Lysed (MB-H1885), 2 vials of Vitalex Growth supplement (MB-V1823) and 2 vials of V.C.N. supplement (MB-V1822). Mix well. Pour into petri dishes.

Vitalex Growth supplement

1 vial contents (each vial is sufficient for 500 mL of medium)

Vitamin B12	0.05 mg
L-Glutamine	50.0 mg
Guanine HCl	0.15 mg
Adenine	5.0 mg
p-Aminobenzoic Acid	0.065 mg
L-Cystine	5.5 mg
Glucose	500.0 mg
NAD	1.25 mg
Coccarboxylase	0.5 mg
Ferric Nitrate	0.1 mg
Thiamine Hydrochloride	0.015 mg
Cysteine Hydrochloride	129.5 mg

V.C.N. supplement

1 vial contents (each vial is sufficient for 500 mL of medium)

Vancomycin	1.5 mg
Colistin	3.75 mg
Nystatin	6,250 IU

• INTERPRETATION

Thayer-Martin Agar is a medium used for the isolation and cultivation of *Neisseria* spp. Proteose peptone provides nitrogen, carbon, amino acids and minerals. Corn starch neutralizes toxic metabolic by products. Dipotassium phosphate and monopotassium phosphate are the buffering agents. Sodium chloride maintains the osmotic balance. Agar is the solidifying agent. Vitalex Growth supplement enhances the growth of *Neisseria* spp. V.C.N. supplement is added to make the medium selective.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at $35 \pm 2^{\circ}\text{C}$ for 24 - 48 hours under microaerobic condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

Prepared medium

Appearance: opaque with precipitates

Color: chocolate brown

Incubation conditions: $35 \pm 2^{\circ}\text{C}$ / 24 - 48 hours under microaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Neisseria meningitidis</i>	13100	50-100	good
<i>Escherichia coli</i>	25922	$\geq 10^3$	inhibited

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at $2 - 8^{\circ}\text{C}$.

• REFERENCES

1. Carpenter, C.M., and H.E. Morton. 1947. An improved medium for isolation of the gonococcus in 24 hours. Proc. N.Y. State Assoc. Public Health Labs. 27:58-60.
2. Carpenter, C.M., M.A. Bucca, T.C. Buck, E.P. Casman, C.W. Christensen, E. Crowe, R. Drew, J. Hill, C.E. Lankford, H.E. Morton, L.R. Peizer, C.I. Shaw, and J.D. Thayer. 1949. Evaluation of twelve media for the isolation of the gonococcus. Am. J. Syphil. Gonorrh. Venereal Diseases 33:164-176.
3. Power, D.A. (ed.), and P.J. McCuen. 1988. Manual of BBL products and laboratory procedures, 6th ed. Becton Dickinson Microbiology Systems, Cockeysville, Md.
4. Thayer, J.D., and J.E. Martin, Jr. 1966. Improved medium selective for cultivation of *N. gonorrhoeae* and *N. meningitidis*. Pub. Health Rep. 81:559-562.

• PACKAGE

Cat. No : MB-T1557 Thayer-Martin Agar	500 G
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