

## 88296 Thayer Martin Agar, Base (GC Agar, Base)

For the selective isolation of *Neisseria gonorrhoeae* and *Neisseria meningitidis* from clinical specimens according to Thayer and Martin. Suitable for transport of inoculated material.

### Composition:

Ingredients	Grams/Litre
Peptone, special	23.0
Starch (soluble)	1.0
Sodium chloride	5.0
Agar	13.0

Final pH 7.0 +/- 0.2 at 25°C

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly sealed containers at 2-25°C. Use before expiry date on the label.

Appearance: Faint beige to faint yellow to faint brown, homogeneous, free flowing powder.  
Gelling: Firm  
Color and Clarity: Yellow colored, clear to slightly opalescent gel. After addition of hemoglobin or sterile lysed blood and supplements: chocolate colored opaque gel forms in Petri plates.

### Directions:

Dissolve 21.0 g in 240 ml distilled water and autoclave at 121°C for 15 minutes. Add the rehydrated contents of one bottle of Thayer-Martin Supplement I (Cat. No. 44051) and Thayer-Martin Supplement II (Cat. No. 52083) to the medium at approx. 50°C. Additionally add 250 ml of sterile 2% hemoglobin (Cat. No. 08449) solution. Mix gently and pour into sterile petri plates or tubes for slants.

### Principle and Interpretation:

Thayer Martin Medium was developed for the primary isolation of *Neisseria gonorrhoeae* and *Neisseria meningitidis* from specimens from throat, vagina, rectum and urethra with mixed flora (4, 5). Thayer and Martin (5) used Vancomycin, Colistin and Nystatin. Martin and Lester (5) used later additionally Trimethoprim to make the medium more selective.

Peptone special is a source of carbon, nitrogen, vitamins and minerals while starch neutralizes the toxic fatty acids if present in the sample or the medium. Agar is the solidifying agent. Haemoglobin provides the X factor whereas the V factor (NAD) is part of the Thayer-Martin Supplement II, which also supplies vitamins, amino acids, coenzymes etc. for the enhanced growth of pathogenic *Neisseria*. Thayer-Martin Supplement I contains Vancomycin and colistin, which inhibits gram-positive and gram-negative bacteria (3), additionally Nystatin suppress the growth of fungi and Trimethoprim inhibits the gram-positive bacteria and as well some gram-negative organisms. This medium may inhibit *Haemophilus* species. Some strains of *Capnocytophaga* species may grow on this medium when inoculated with oropharyngeal specimens.



Cultural characteristics observed after 18-48 hours at 35-37°C (with supplements & hemoglobin)

Organisms (ATCC/WDCM*)	Inoculum [CFU]	Growth	Color of Colony
<i>Escherichia coli</i> (25922/00013*)	$\geq 10^4$	-	-
<i>Neisseria gonorrhoeae</i> (19424)	50-100	++/+++	small, grayish white to colorless, mucoid
<i>Neisseria meningitidis</i> (13090)	50-100	++/++	medium to large, blue gray, mucoid
<i>Proteus mirabilis</i> (25933)	$\geq 10^4$	-	-

#### References:

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
2. 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.
3. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore
4. Martin, Billings, Hackney and Thayer, 1967, Public Hlth. Rep., 82:361.
5. Thayer J. and Martin J.E. Jr., 1966, Public Health Rep., 81:559.
6. Martin J.E. Jr. and Lester A., 1971, HSMHA Hlth. Service Rep., 86(1):30.

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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