

## Specification

Selective supplement for the isolation of *Neisseria spp.*

## Presentation

10 Freeze dried vials  
Vial  
with: 6 ± 0.1 g

### Packaging Details

22±0.25 x 55±0.5 mm glass vials, tag labelled, White plastic cap - 10 vials per box.

### Shelf Life

49 months

### Storage

2-8 °C

## Composition

Composition (g/vial)

Vancomycin.....0.00150  
Colistin sulphate.....0.00375  
Nystatin.....6250 IU

**Note :** Each vial is sufficient to supplement for 500 ml of medium Base GC + Enrichment Suppl.

Reconstitute the original freeze-dried vial by adding  
Sterile Distilled Water.....5 ml

## Description /Technique

### Description:

GC Agar Base (Cat. 1106) is used with various additives for the isolation and cultivation of pathogenic microorganisms such as *Neisseria gonorrhoeae*, *Haemophilus influenzae* and *N. meningitidis*. GC Agar Base is employed with the addition of hemoglobin and supplements for the preparation of Chocolate Agar and Thayer-Martin Medium.

VCN Supplement (Cat. 6013) turns the base medium into Thayer Martin Medium.

The addition of hemoglobin in Chocolate Agar provides hemin (X factor), required by *Haemophilus* species and promotes the growth of *Neisseria* species. A chemical enrichment composed of cofactors, vitamins and nicotinamide adenine dinucleotide (NAD) is also required for the growth of *Haemophilus* and *Neisseria* spp. If required, antimicrobial supplements are added as inhibitors for an improved selectivity of the medium.

Thayer and Martin improved the selectivity of the GC agar by incorporating antibiotics such as colistin, vancomycin or nystatin, in order to grow fastidious microorganisms that require different growth factors. Thayer-Martin Medium is recommended for the primary isolation of *N. gonorrhoeae* and *N. meningitidis* from specimens with mixed flora taken from throat, vagina, rectum and urethra samples. It is designed to reduce the overgrowth of gonococci and meningococci by contaminants, to suppress saprophytic *Neisseria* species growth and to encourage pathogenic *Neisseria* growth. On Thayer-Martin Medium the typical colonies of *N. gonorrhoeae* are white-gray, opaque, sometimes shiny, finely granular in appearance, variable in size (1-2 mm), round with entire or lobate edges and mucoid after 48 hours of incubation.

### Technique:

Aseptically reconstitute 1 vial with 5 ml of sterile distilled water. Mix well until complete dissolution and aseptically add to 250 ml of GC Agar Base (Cat. 1106) at double concentration, autoclaved and cooled to 50 °C and + 250 ml of sterile 2 % hemoglobin solution. Also add Polyenrichment Supplement (Cat. 6011) or Polyenrichment CC Supplement (Cat. 6071), previously reconstituted. Mix well and distribute into sterile containers. If desired, this supplement can also be added to Columbia Agar Base (Cat. 1104).

### Instructions for use:

For clinical diagnosis, the type of sample is secretions of the respiratory tract.

- Use standard procedures to obtain isolated colonies from specimens.

- Since many pathogens require carbon dioxide on primary isolation, plates may be incubated in an atmosphere containing approximately 5-10 % CO<sub>2</sub>. - Incubate at 35 ± 2 °C for 40-48 hours.

## Quality control

### Physical/Chemical control

Color : White-yellowish

pH: at 25°C

### Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely

Add 1 vial to 500 ml of medium base. DO NOT HEAT once supplemented.

Distribute the complete medium, cooled to 50 °C, into 90 mm plates

Atmosphere 5% CO<sub>2</sub>. Incubation at 35 ± 2 °C. Reading at 40-48h.

### Microorganism

*Neisseria meningitidis* ATCC® 13090

### Growth

Good

### Sterility Control

Incubation 48 hours at 30-35 °C and 48 hours at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

## Bibliography

- ATLAS, R.M. & L.C. PARKS (1997) Handbook of microbiological media. CRC Press. BocaRaton .Fla. USA.
- MacFADDIN, J. (1985) Media for isolation-cultivation-Identification-maintenance of medical bacteria. Vol. I. William & Wilkins. Baltimore.
- ODEGAARD, K. (1971) Trimethoprim for the prevention of overgrowth by swarming Proteus in the cultivation of gonococci. Acta. Path. Microbiol. Scand. Sect. (B) 79:545-548.
- THAYER, J. D. & J. E. MARTIN (1966). Improved medium selective for cultivation of Neisseria gonorrhoeae and N. meningitidis Pub. Health Rep. 81:559-562.