



Reference: 06-141LYO1

Scharlau Microbiology - Technical Data

Product: VCAT Selective supplement

Specification

Sterile selective supplement for the isolation of pathogenic *Neisserias*.

Presentation

| | Packaging Details | Shelf Life | Storage |
|--|--|------------|---------|
| 10 Freeze dried vials Vial with: 3 ± 0.1 g | 23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box. | 49 months | 2-25 °C |

Composition

Compositon (g/vial)

| | |
|------------------------|---------|
| Vancomycin..... | 0.00100 |
| Colistin sulphate..... | 0.00375 |
| Trimethoprim..... | 0.00150 |
| Anphotericin..... | 0.00150 |

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..... 6 ml

Description /Technique

Description:

The *Neisseria spp.* include a lot of commensal bacteria that colonize the mucosal surfaces of many animals. Between the 11 species that colonize humans, only two are pathogens *N. meningitidis* and *N. gonorrhoeae*. *N. gonorrhoeae* is the causative agent of gonorrhoea and is transmitted via sexual contact *Neisseria meningitidis* is the responsible for septicemia and meningitis.

In media like Thayer Martin and Chocolate agar *N. gonorrhoeae* and *N. meningitidis* produce colourless and translucent colonies. Antibiotic incorporated in the medium with the inhibitory supplement avoid the growth of almost all the non pathogen micro organisms included in the sample, including the saprophytic species of *Neisseria*.

Technique:

Thayer-Martin Agar:

Effective for the isolation of pathogen neisseria. It is prepared with GC Base Agar, haemoglobin and an inhibitor vial VCAT. It contains Vancomycin and Colistin to inhibit the oxidase-positive contaminants; Nystatin to prevent the growth of saprophytic fungi and trimethoprim that prevent the Proteus overgrowth.

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Reconstitute the vial with 6 ml sterile diluent in aseptic conditions and add it to 500 ml of melted Agar base cooled to 50°C.

Do not overheat once supplemented.

Pour the complete medium into Petri dishes and, once solidified on a flat surface, spread the plates either by streaking or by spiral method.

Incubate at 37°C, in a very moist, 10% CO₂ enriched atmosphere for 48h.

(Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample or the specifications).

After incubation, count all the colonies that have appeared onto the surface of the agar.

Presumptive isolation / recovery of *Neisserias spp.* must be confirmed by further microbiological and biochemical tests.



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Product: **VCAT Selective supplement**

Quality control

Physical/Chemical control

Color : Orange

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.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

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

Incubate according instructions for complete medium indicated in COMPOSITION.

5-10% CO₂ atmosphere. Incubation at 37 ±1 °C during 48 ± 2 h.

Microorganism

Growth

Neisseria gonorrhoeae ATCC® 19424

Good

Neisseria meningitidis ATCC® 13090

Good

Staphylococcus aureus ATCC® 6538, WDCM 00032

Inhibited

Sterility control

Add 5 ml of the sample to:

100 ml TSB and 100 ml Thioglycollate.

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

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.