Condalab

Reference: 6012 **Technical Data Sheet**

Product: **LCAT SUPPLEMENT**

CE IVD

Specification

Selective supplement for pathogenic *Neisseria* isolation.

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze-dried vials Vial with: 6 ± ml	22±0.25 x 55±0.5 mm glass vials, tag labelled, White plastic cap - 10 vials per box.	49 months	2-8 ºC

Composition

Compositon (g/vial)

Amphotericin B.....0.00050
Trimethoprim.....0.00325
Colistin sulphate.....0.00300
Lincomicine.....0.00050

Note : Each vial is sufficient to supplement 500ml of GC Agar Base.

Reconstitute the original freeze-dried vial by adding :

Sterile Distilled Water.....10 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.
LCAT Supplement (Cat. 6012) is used for the isolation of pathogenic *Neisseria*.
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 10 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, cooled to 50 ºC + 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 plates or tubes with screw caps. Allow the tubes to solidify in an inclined position.

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_2. - Incubate at 35 ± 2 °C for 40-48 hours.

Quality control

Physical/Chemical control

Color : White-Gray pH: at 25ºC

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 ºC, into 90 mm plates

Atmosphere 5% CO_2. Incubation at 35 ± 2 ºC. Reading at 40-48h.

Microorganism	Growth
Neisseria meningitidis ATCC® 13090	Good
Neisseria gonorrhoeae ATCC® 19424	Good
Escherichia coli ATCC® 25922, WDCM 00013	Inhibited
Stph. epidermidis ATCC® 12228, WDCM 00036	Inhibited

Sterility Control

Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

Thayer, J.D., and A. Lester. 1971. Transgrow, a medium for transport and growth Neisseria gonorrhoeae and Neisseria meningidititidis. HSMHA Health Service Rep., 86:30.

MacFaddin, J.F. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, M.D.

Murray, P.R., E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Yolken (ed.).1 995. Manual of clinical microbiology, 6th ed. American Society of Microbiology, Washington, D.C.