Technical Data

HiCombi™ Dual Performance Medium

LQ033

Recommended for rapid growth of *Enterobacteria, Pseudomonas* , Staphylococci and *Candida* . Combination of solid (7ml) and liquid (20ml) media in single bottle.

Composition**

Ingredients	Gms / Litre
Solid	7.000 ml
Calf brain, infusion from	200.000
Beef heart, infusion from	250.000
Proteose peptone	10.000
Dextrose	2.000
Sodium chloride	5.000
Disodium phosphate	2.500
Agar	15.000
Liquid	20.000 ml

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use blood culture bottle. Do not unscrew the cap Remove the top seal of the cap. Disinfect the part of the rubber stopper which is now exposed. Draw patient's blood with the sterile or disposable needle and syringe. Transfer the blood sample immediately into the culture bottle by puncturing the rubber with the needle stopper and injecting the blood. Incubate the bottle for 4-6 hours at 30 -35°C. For adsorption on solid surface. DO NOT SHAKE OR HOLD MORE THAN 15 SECONDS. Revert into an upright position and incubate for 18-24 hours at 30-35° C or longer if necessary. Venting: Use sterile venting needle (LA038). Keep the bottle in an upright position preferably in a biological safety cabinet,place an alcohol swab over the rubber stopper and insert the venting needle with filter through it. Insertion and withdrawal of the needle should be done in a straight line. discard the needle and mix the contents by gently inverting the bottle 2-3 times. Do Not vent the bottle for anaerobic cultures. Incubate at 30-35°C for 18-24 hours and further for seven days.

Principle And Interpretation

Brain Heart Infusion Medium is useful for cultivating a wide variety of microorganisms since it is a highly nutritive medium. It is also used to prepare the inocula for antimicrobial susceptibility testing. Brain Heart Infusion Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth (1). Brain Heart Infusion Broth is also the preferred medium for anaerobic bacteria, yeasts and moulds (2-4). This medium is nutritious and well buffered to support the growth of wide variety of organisms (2, 5, 6). With the addition of 10% defibrinated sheep blood, it is useful for isolation and cultivation of *Histoplasma capsulatum* (7) and other fungi. For selective isolation of fungi, addition of gentamicin and/ or chloramphenicol is recommended (8). Proteose peptone and infusions (calf brain and beef heart) serve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose serves as a source of energy. Disodium phosphate helps in maintaining the buffering action of the medium whereas sodium chloride maintains the osmotic equilibrium of the medium.

Quality Control

Appearance

In a sterile glass bottle combination of broth and one agarcoated surface.

Colour

Yellow coloured medium Amber coloured solution

Quantity of medium

20ml of Liquid in glass bottle and 7 ml of solid in glass bottle

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Location: Moldova

Recommended volume of blood to be tested in LQ033: 3-5 ml

Please refer disclaimer Overleaf.

pH of Agar medium

7.20- 7.60

pH of liquid medium

7.20- 7.60

Sterility test

Passes release criteria

Cultural response

Cultural characteristics was observed after incubation at 35-37°C for 18-48 hours.

Organism	Growth on agar medium	Growth on liquid medium
Cultural response		
Candida albicans ATCC 10231	Luxuriant	Luxuriant
Haemophilus influenzae ATCC 19418	Luxuriant	Luxuriant
Pseudomonas aeruginosa ATCC 27853	Luxuriant	Luxuriant
Staphylococcus aureus ATCC 25923	Luxuriant	Luxuriant
Streptococcus pyogenes ATCC 19615	Luxuriant	Luxuriant

Storage and Shelf Life

On receipt store between 15-22°C. Use before expiry date on the label.

Reference

1.,,Manual of Clinical Micro., 1999, 7th Edition, Editor in Chief Patrick R. Murray, ASM Press. 2. ,,Practical Medical Micro., 1996, 14th Edition, MacKie and McCartney Edited by J G Coller, A G Fraser, B P Marmion, A. Simmons. Churchill Livingstone. 3.,,Evans, G.L., T. Cekoric Jr., R.I. Searcy, 1968. Comparative effects of anticoagulants on bacterial growth in experimental blood cultures. Am. J. Med. Technol., 34:103. 4.,,Evans, G.L., et al 1966. Effects of Anticoagulants on Antibacterial Action of Blood. Clin. Res., 14:484. 5.,,Garrod, P.R. 1966. The growth of Streptococcus viridans in sodium polyanethol sulphonate (Liquid). J. Pathol., 91:621. 6.,,May, J.R., A.E. Voureka, A. Fleming, 1947. Some problems in the Titration of Streptomycin, Br. Med. J., 1:627. 7.,,Jackson, D.M., E.J.L. Lowbury, E. Topley, 1951. Pseudomonas Pyocyanea in Burns - Its Role as a Pathogen and the value of Local Polymyxin Therapy, Lancet., 2:137. 8.,,Evans, G.L., et al. 1967. Growth inhibition of mycoplasmas by sodium polyanethol sulphonate. Antimicrob. Agents Chemother.1967: 687. 9. ,,Van Haebler T., A.A. Miles, 1938. The action of sodium polyanethol sulphonate (liquoid) on Blood Cultures J. Pathol. 46:245. 10.,,Essential Procedures in Clinical Microbiology, 1998. Isenberg Henry D. Editor -in- Chief ASM Press Washington D.C.

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