Technical Data

HiCombi™ Dual Performance Salmonella Medium - SS

LQ029

Intended use

Recommended as a qualitative test for rapid growth and confirmation of *Salmonella*. Combination of solid (7 ml) and liquid (20 ml) media in single bottle.

Composition**

Ingredients	Gms / Litre
Solid	7.000 ml
Peptone	5.000
HM peptone B #	5.000
Lactose	10.000
Bile salts mixture	8.500
Sodium citrate	10.000
Sodium thiosulphate	8.500
Ferric citrate	1.000
Brilliant green	0.00033
Neutral red	0.025
Agar	15.000
Liquid	20.000 ml

Same as solid media without Agar

**Formula adjusted, standardized to suit performance parameters

Equivalent to Beef extract

Directions

Label the ready to use LQ029 bottle. Remove the top seal of the cap. Disinfect the part of the rubber stopper which is now exposed. Transfer the sample immediately into the culture bottle by puncturing the rubber stopper with the needle. 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 35-37°C for 18-24 hours and further for seven days. Recommended volume of blood to be tested in LQ029: 3-5 ml (For Paediatric use)

Principle And Interpretation

SS Agar medium is recommended as differential and selective medium for the isolation of Salmonella and Shigella species from pathological specimens (5) and suspected foodstuffs (1, 8, 2, 9) and for microbial limit test (7). SS Agar is a moderately selective medium in which gram-positive bacteria are inhibited by bile salts, brilliant green and sodium citrate.

Peptone, HM peptone B provides nitrogen and carbon source, long chain amino acids, vitamins and essential growth nutrients. Lactose is the fermentable carbohydrate. Brilliant green, bile salts and thiosulphate selectively inhibit gram-positive and coliform organisms. Sodium thiosulphate is reduced by certain species of enteric organisms to sulphite and H_2S gas and this reductive enzyme process is attributed by thiosulphate reductase. Production of H_2S gas is detected as an insoluble black precipitate of ferrous sulphide, formed upon reaction of H_2S with ferric ions or ferric citrate, indicated in the center of the colonies.

The high selectivity of Salmonella Shigella Agar allows the use of large inocula directly from faeces, rectal swabs or other materials suspected of containing pathogenic enteric bacilli. On fermentation of lactose by few lactose-fermenting normal intestinal flora, acid is produced which is indicated by change of colour from yellow to red by the pH indicator-neutral red. Thus these organisms grow as red pigmented colonies. Lactose non-fermenting organisms grow as translucent colourless colonies with or without black centers. Growth of Salmonella species appears as colourless colonies with black centers resulting from H_2S production. Shigella species also grow as colourless colonies which do not produce H_2S.

Type of specimen

Clinical samples : Blood

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical and serological testing is required for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
In a sterile glass bottle combination of broth and one agar coated surface.

Colour of Agar medium
Yellow coloured media

Colour of liquid medium
Amber coloured solution

Quantity of medium
20ml of medium in glass bottle 40ml of medium in glass bottle

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	Inoculum (CFU)	Growth on agar medium	Growth on liquid medium
Candida albicans ATCC 10231 (00054)*	50-100	Luxuriant	Luxuriant
Haemophilus influenzae ATCC 19418	50-100	Luxuriant	Luxuriant
Pseudomonas aeruginosa ATCC 27853 (00025)*	50-100	Luxuriant	Luxuriant
Streptococcus pyogenes ATCC 19615	50-100	Luxuriant	Luxuriant
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50-100	Luxuriant	Luxuriant
Neisseria meningitidis ATCC 13090	50-100	Luxuriant	Luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	Luxuriant	Luxuriant

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 15-22°C. Use before expiry date on the label.
Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

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3. Howard B., Keiser J. F., Weissfeld A. et al, 1994, Clinical and Pathogenic Microbiology, 2nd Ed., Mosby Co.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
5. 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.
6. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
7. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology,8th Ed., American Society for Microbiology, Washington, D.C.
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9. Roseburg T. et al, 1944, J. Inf. Dis., 74:

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IVD	In vitro diagnostic medical device
CE	CE Marking
8°C 2°C	Storage temperature
	Do not use if package is damaged
	HiMedia Laboratories Pvt. Limited, 23 Vadhani Industrial Estate, LBS Marg,Mumbai-86,MS,India
EC REP	CE Partner 4U ,Esdoornlaan 13, 3951 DB Maarn The Netherlands, www.cepartner 4u.eu