

Schaedler Broth

LQ008

Intended Use

Recommended for the recovery of anaerobic and facultative microorganisms. *Sterile, in glass bottles.*

Composition**

Ingredients	g / L
Tryptone	5.670
Proteose peptone	5.000
Soya peptone	1.000
Yeast extract	5.000
Dextrose (Glucose)	5.830
Sodium chloride	1.670
Dipotassium hydrogen phosphate	0.830
Tris (hydroxymethyl) aminomethane	3.000
L-Cystine	0.400
Hemin	0.010
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use blood culture bottle. Remove the Aluminium foil cap. Disinfect the part of the rubber stopper which is now exposed. Draw patient's blood with the sterile or disposable needle and syringe as explained in specimen collection and disposable column. Transfer the blood sample immediately into the culture bottle by puncturing the rubber stopper with the needle and injecting the blood. 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.

Principle And Interpretation

Schaedler Broth was originally formulated by Schaedler et al (1) and modified by Mata et al (2) with composition changes (2). It serves as an excellent basal medium to which blood or other enrichments can be added to enhance the recovery of fastidious anaerobic organisms. Stalons et al (3) found this medium to be most effective medium for the growth of obligately anaerobic bacteria in an atmosphere of 5% carbon dioxide, 10% hydrogen and 85% Nitrogen. It can also be used to determine antibiotics MIC levels of anaerobic organisms (3). Fass et al used (4) tube method for antibiotic MIC determination. Schaedler broth is highly nutritious medium due to tryptone, proteose peptone, soya peptone and yeast extract. Hemin and sheep blood stimulates the growth of fastidious microorganisms and stimulates growth of other *Bacteroides* species and gram-positive spore formers (5).

Type of specimen

Clinical samples -Blood

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. For professional 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. Proper anaerobic conditions must be maintained for optimal recovery of organisms.

Please refer disclaimer Overleaf.

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

Sterile, clear Schaedler Broth in glass bottle.

Colour

Yellow coloured clear solution

Quantity of Medium

20ml of medium in glass bottle. (Volume of blood for paediatrics use - 1 to 3 ml)

pH

7.40- 7.80

Sterility Check

Passes release criteria

Cultural response

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

Organism	Inoculum (CFU)	Growth under anaerobic conditions	Growth under aerobic conditions
<i>Bacteroides fragilis</i> ATCC 25285	50-100	luxuriant	-
<i>Clostridium butyricum</i> ATCC 13732	50-100	luxuriant	-
<i>Clostridium perfringens</i> ATCC 12924	50-100	luxuriant	-
<i>Clostridium sporogenes</i> ATCC 11437	50-100	luxuriant	-
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	-	luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	-	luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 15-30°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 (6,7).

Reference

- 1.Schaedler R.W., Dubos R. and Castello R., 1965, J. Exp. Med., 122:59.
- 2.Mata L.J., Carrillo C. and Villatoro E., 1969, Appl. Microbiol, 17:596.
- 3.Stalons D.R., Thornsberry C. and Dowel V.R., 1974, Appl. Microbiol, 27:1098.
- 4.Fass R.J., Prior R.B. and Rotilie C.A., 1975, Antimicrob. Agents Chemother., 8:444.
- 5.Finegold et al, 1974, Manual of Clinical Microbiology, 2nd ed., Lennette and others (Eds.), ASM, Washington, D.C.
- 6.Isenberg (Ed.), 1992, Clinical Microbiology Procedures Handbook, American Society for Microbiology, Washington, D.C.
- 7.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.

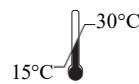
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Storage temperature



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