Kracke Blood Culture Medium

M171

Intended Use:

Recommended for isolating organisms from blood in bacteremias and for maintaining cultures isolated from blood.

Composition**

Ingredients	g / L
BHI powder#	2.000
Proteose peptone	10.000
Sodium chloride	49.000
Dextrose (Glucose)	10.000
Sodium citrate	1.000
Disodium hydrogen phosphate	2.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Beef brain heart, solids

Directions

Suspend 3.75 grams in 50 ml purified/distilled water. Allow the suspension to stand for 15 minutes. When all the medium particles are thoroughly wet, sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Bacteremia is most commonly diagnosed by blood culture, in which a sample of blood is incubated in a medium that promotes bacterial growth. Anaerobic bacteria thrive in the environment with limited amount of oxygen or no oxygen at all. Some of these bacteria are killed when exposed to oxygen, however others can survive with or without oxygen. Some anaerobic bacteria cause illness, while others pose no problems to humans or may be helpful. Kracke Blood Culture Medium was developed by Kracke and Teasley (1) for culturing anaerobic bacteria from blood in bacteremia infection. The medium can also be used for maintaining the cultures isolated from blood and for carrying stock cultures (2).

BHI powder and proteose peptone in the medium provides nitrogen, vitamins and minerals necessary to support bacterial growth. Sodium chloride provides essential ions. Disodium hydrogen phosphate buffers the medium. Dextrose is an energy source. Sodium citrate prevents blood from clotting and helps in fixing the complement as well. Kracke and Teasley included finely divided particles of brain and heart tissue, which aid in fixing the complement and in removing immune bodies from the blood specimen.

Type of specimen

Clinical samples - Blood

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
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. Further biochemical and serological tests must be carried out 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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate

Reaction

Reaction of 7.5% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

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

Organism	Inoculum (CFU)	Growth
Salmonella Typhi ATCC 6539	50-100	luxuriant
Streptococcus pyogenes ATCC 19615	50-100	luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. 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 (3,4).

Reference

1. Kracke R. R and Teasley H. E, 1930, J. Lab. Clin. Med., 16:169.
2. Feder, 1937, J. Lab. Clin. Med., 22:846.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. 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.

Revision : 04/2024

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IVD *In vitro* diagnostic medical device

10°C – 30°C Storage temperature

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CE CE Marking

Do not use if package is damaged