



Kracke Blood Culture Medium

M171

Kracke Blood Culture Medium is used for isolating organisms from blood in bacteremias and for maintaining cultures isolated from blood.

Composition**

Ingredients	Gms / Litre
Beef heart, solids	2.000
Beef brain solids	1.000
Proteose peptone	10.000
Sodium chloride	49.000
Dextrose	10.000
Sodium citrate	1.000
Disodium phosphate	2.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 3.75 grams in 50 ml distilled water. Allow the suspension to stand for 15 minutes. When all the meat 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).

Beef heart solids, beef brain solids and proteose peptone in the medium provides nitrogen, vitamins and minerals necessary to support bacterial growth. Sodium chloride provides essential ions. Disodium 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.

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

M171: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

Organism	Inoculum (CFU)	Growth
<i>Salmonella Typhi</i> ATCC 6539	50-100	luxuriant

Streptococcus pyogenes 50-100 luxuriant
ATCC 19615

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label

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.

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