

CM 20876 - KRACK BLOOD CULTURE MEDIUM

INTENDED USE

For isolating organisms from blood in bacteremias and maintaining cultures isolated from blood.

PRODUCT SUMMARY AND EXPLANATION

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 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.

COMPOSITION

Ingredients	Gms / Ltr
Beef brain heart, solids	2.000
Proteose peptone	10.00
Sodium chloride	49.000
Dextrose (Glucose)	10.000
Sodium citrate	1.000
Disodium hydrogen phosphate	2.000

PRINCIPLE

The medium consists of Beef brain heart, solids 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.

INSTRUCTION FOR USE

Dissolve 3.75 grams in 50 ml distilled water.

Allow the suspension to stand for 15 minutes.

When all the medium particles are thoroughly wet, sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Light amber coloured, clear solution without any precipitate.

pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observe after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Salmonella Typhi	6539	50-100	Luxuriant	35 - 37°C	24-48 Hours
Streptococcus pyogenes	19615	50-100	Luxuriant	35 - 37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For Lab Use Only

