

Brain Heart Infusion Broth

RFF Pack size 1401 001 100 am 1401 002 500 gm

Intended Use

Brain-Heart Infusion Broth is used for the cultivation of streptococci, Neisseria and other fastidious organisms .

Background

Rosenow prepared a rich medium for culturing streptococci by combining dextrose broth and brain tissue. Hayden modified the original formula while working with dental pathogens.

The current formula is a modification of Rosenow and Hayden, using dehydrated infusions of calf brain and beef heart tissue.

The medium can be used for the preparation of inoculum in antimicrobial susceptibility test procedures and for the cultivation of fastidious

Principle

Brain Heart Infusion broth is highly nutritious and can support luxuriant growth of wide variety of microorganisms. Proteose peptone and infusions used in the media serves as sources of carbon, nitrogen, vitamins, amino acids, along with essential growth factors. Dextrose is the energy source. Sodium chloride maintains the osmotic equilibrium of the medium while disodium phosphate buffers the medium.

Components	gm/Litre
Calf brain	7.7
Protease peptone	10.0
Beef Heart	9.8
Dextrose	2.0
Sodium chloride	5.0
Disodium phosphate	2.5
Final pH (at 25°C) 7.4 ± 0.2	

Preparation, Storage and Stability

Store the dehydrated medium at 10-30°C and use before the expiry date on the label. Store the prepared medium at 2-8°C

Procedure

- 1.Suspend 37 g of the powder in 1 L distilled water and mix well.
- 2. Heat if necessary to dissolve the medium completely.
- 3.Dispense into bottles or tubes as desired. 4.Sterilize by autoclaving at 121°C for 15 minutes.



Quality Control

Appearance

1-Dehydrated Appearance: light yellow to light tan coloured, homogeneous, free flowing powder. brilliant to clear, with none to light 2-Prepared Appearance precipitate, and amber in color after 18-24 hours at 30-35°C

3-Cultural Response or 35± 2°C for clinical specimens

Organisms (ATCC)	Growth
Neisseria meningitidis	Good
Streptococcs pneumoniae	Good
Streptococcus pyogenes	Good
Escherichia coli	Good

Interpretation of the results

- 1-Growth in tubes is indicated by turbidity.
- 2- Incubate the subcultures anaerobically if anaerobes are suspected.

Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practicés 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.

Bibliography

- 1. Cunnif, P. (ed.). 1995. Official Methods of Analysis AOAC International, 16th ed. AOAC International, Gaithersburg, MD.
- 2. U.S. Food and Drug Administration. Bacteriological analytical manual, 8th ed., AOAC International, Gaithersburg, MD.
- 3. Vanderzant, C., and D. F. Splittstoesser (eds.). 1992. Compendium of methods for the microbiological examination of food., 3rd ed. American Public Health Association, Washington, D.C

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