BHI Broth, Granulated (Brain Heart Infusion Broth)

Intended Use

BHI Broth, Granulated is employed for the cultivation of fastidious pathogenic cocci and other organisms associated with blood culture work and allied pathological investigations.

Typical Composition (g/litre)

HM infusion powder 12.5; Proteose peptone 10.0; BHI powder 5.0; Dextrose 2.0; Sodium chloride 5.0; Disodium phosphate 2.50

Mode of Action

This culture medium is highly nutritious and buffered to support the growth of fastidious and non fastidious microorganism, including aerobic and anaerobic bacteria. BHI Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth.

Proteose peptone, HM infusion powder and BHI powder serve as sources of carbon, nitrogen, essential growth factors, amino acids and vitamins. Dextrose serves as a source of energy. Disodium phosphate helps in maintaining the buffering action of the medium whereas sodium chloride maintains the osmotic equilibrium of the medium.

Preparation

Suspend 37.0 grams in 1000 ml purified / distilled water. Dispense into bottles or tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For best results, the medium should be used on the day it is prepared, otherwise, it should be boiled or steamed for a few minutes and then cooled before use

Final pH (at 25°C) 7.4±0.2

Storage

Store below 30°C in a tightly closed container and the prepared medium at 15 - 25°C. Use before expiry date on the label.

Specimen

Clinical samples – Blood and other pathological samples. Food samples.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used. Brain heart broth is especially suited for the cultivation of staphylococci for the plasma coagulase test.

With the addition of 10% defibrinated sheep blood, it is useful for isolation and cultivation of Histoplasma capsulatum and other fungi.

Quality Control

Organism	Inoculum	Growth
Neisseria Meningitidis ATCC 13090	50 - 100	Good-Luxuriant
Streptococcus pyogenes ATCC 19615	50 - 100	Good-Luxuriant
Staphlococcus aureus ATCC 25923	50 - 100	Good-Luxuriant
Streptococcus pneumonia ATCC 6303	50 - 100	Good-Luxuriant
Candida albicans ATCC 10231	50 - 100	Good-Luxuriant
Enterococcus faecalis ATCC 29212	50 - 100	Good-Luxuriant

Reference

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