Brain Heart Infusion Broth with 6.5 % NaCl

M1037

Brain Heart Infusion Broth with 6.5 % NaCl is highly nutritious medium employed for the selective cultivation of salt tolerant microorganisms.

Composition**

Ingredients	Gms / Litre
Calf brain, infusion from	200.000
Beef heart, infusion from	250.000
Proteose peptone	10.000
Dextrose	2.000
Sodium chloride	65.000
Disodium phosphate	2.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 97 grams in 1000 ml 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.

Principle And Interpretation

Brain Heart Infusion Medium is useful for cultivating a wide variety of microorganisms since it is a highly nutritive medium. Brain Heart Infusion Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth (1).

Brain Heart Infusion Broth with 6.5 % NaCl is employed for the selective cultivation of salt tolerant microorganisms. High concentration of sodium chloride acts as a differential and/or selective agent by interfering with membrane permeability and osmotic and electro kinetic equilibrium in salt intolerant organisms.

Proteose peptone and infusions (calf brain and beef heart) 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.

Quality Control

Appearance
Cream to light yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light amber coloured, clear solution without any precipitate

Reaction
Reaction of 9.7% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH
7.20-7.60

Cultural Response
M1037: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
Staphylococcus aureus ATCC 25923	50-100	good-luxuriant
Neisseria meningitidis ATCC 13090	>=10^3	inhibited

Streptococcus pneumoniae ATCC 6303	>=10^3	inhibited
Streptococcus pyogenes ATCC 19615	>=10^3	inhibited
Enterococcus faecalis ATCC 29212	50-100	good-luxuriant

Storage and Shelf Life

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

Reference

1. Rosenow, 1919, J. Dental Research, 1:205.

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