

BRAIN HEART INFUSION BROTH ISO 6888-1

CAT N°: 1331

For the confirmation of coagulase-positive staphylococci

FORMULA IN g/l

Calf Brain Infusion	12.50	Sodium Chloride	5.00
Enzymatic Digest of Animal Tissue	10.00	Disodium Phosphate	2.50
Beef Heart Infusion	5.00	Glucose	2.00

Final pH 7.4± 0.2 at 25°C

PREPARATION

Suspend 37 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

USES

BRAIN HEART INFUSION BROTH (BHI Broth) is a general purpose medium recommended by the ISO normative 6888-1 for the confirmation of coagulase-positive staphylococci.

Calf brain infusion, Enzymatic digest of animal tissue and Beef heart infusion provide nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Disodium phosphate is a buffer. Glucose is the fermentable carbohydrate providing carbon and energy.

Collect the inoculum from the surface of each selected colony using a sterile wire and introduce the inoculum in a tube or bottle that contains the Brain-heart infusion. Incubate at 35-37°C for 24 ± 2 hours. Under aseptic conditions, add 0.1 ml of each culture to 0.3 ml of rabbit plasma in sterile hemodialysis tubes or bottles. Incubate at 35-37°C. Examine the coagulase plasma by inclining the tube after incubating for 4 to 6 hours. If the test is negative, re-examine after 24 hours of incubation or after the incubating period recommended by the manufacturer is over,

The coagulase test is considered positive if the clot volume is more than half of the original liquid volume.

As a negative control for each plasma lot, add 0.11 ml of Brain-heart infusion to the quantity of rabbit plasma indicated by the manufacturer and incubate without inoculation. For the test to be valid, the plasma control should not show any signs of coagulation.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35-37°C and observed after 24 ± 2 hours.

Microorganisms	Growth
<i>Staphylococcus aureus</i> ATCC 25923	Good
<i>Proteus mirabilis</i> ATCC 25933	Good
<i>Staphylococcus epidermidis</i> ATCC 12228	Good

According to ISO 11133 (24±2)h / (37±1)°C (Productivity)

Microorganisms	Inoculum (cfu/ml)	Productivity Qualitative
<i>Staphylococcus aureus</i> ATCC 25923	≤ 100	Turbidity (2)

BIBLIOGRAPHY

International Standard ISO 6888-1 Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) -- Part 1: Technique using Baird-Parker agar medium.



STORAGE

Once opened keep powdered medium closed to avoid hydration.

