

Brain Heart Infusion Broth (NCM0016)

Intended Use

Brain Heart Infusion Broth is used for the cultivation of a wide variety of fastidious organisms and is not intended for use in the diagnosis of disease or other conditions in humans.

Description

A rich isotonic infusion medium with tryptose (a mixture of meat and milk peptones) providing a wide range of substrates. A low concentration of glucose is used to stimulate early growth. The medium is lightly buffered to prevent the early death of some species due to acid production. Organisms which produce significant amounts of acid may well overwhelm the buffering system and auto-sterilize. The medium is suitable for use as a blood culture medium or as an enrichment broth for fastidious organisms.

Typical Formulation

Brain Heart Infusion Solids (Porcine)	17.5 g/L*
Tryptose	10.0 g/L
Glucose	2.0 g/L
Sodium Chloride	5.0 g/L
Disodium Hydrogen Phosphate	2.5 g/L

*Equivalent to 12.5g dehydrated brain infusion and 5.0g of heart infusion

Final pH: 7.4 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

1. Refer to SDS

Preparation

1. Dissolve 37 grams of the medium in one liter of purified water.
2. Heat with frequent agitation to completely dissolve the medium, if necessary.
3. Autoclave at 121°C for 15 minutes.

Test Procedure

- Technique using Baird-Parker agar medium – Refer to ISO 6888 Part 1:1999
- Detection and MPN technique for low numbers – Refer to ISO 6888 Part 3:2003

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and beige.

Prepared Appearance: Prepared broth is clear with no precipitate and tan in color.

Expected Cultural Response: Cultural response in Brain Heart Infusion Broth incubated at 37 ± 1°C under aerobic atmosphere and temperature and examined for growth at 22-26 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Escherichia coli</i> ATCC® 25922	10-100	Growth
<i>Staphylococcus aureus</i> ATCC® 25923	10-100	Growth
<i>Streptococcus pyogenes</i> ATCC® 19615	10-100	Growth

The organisms listed are the minimum that should be used for quality control testing.

Results

Refer to appropriate references for test results.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitation of the Procedure

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at 2 – 30°C away from direct sunlight. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. ISO 6888 Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species)
 - a. ISO 6888 Part 1:1999 Technique using Baird-Parker agar medium
 - b. ISO 6888 Part 3:2003 Detection and MPN technique for low numbers