

# **Technical Data**

## Brain Heart Infusion Broth. 100 g / 500 g

Used for propagation of pathogenic cocci and other fastidious organisms associated with blood culture work and allied pathological investigation.

## **Product Presentation:**

Cat No.	Cat No. Product description	
11020040100	Brain Heart Infusion Broth	100 Gram
11020040500	Brain Heart Infusion Broth	500 Gram

#### <u>Principle</u>

Brain Heart Infusion Broth is a modification of the original formulation of Rosenow, where he added pieces of brain tissues to dextrose broth. This medium is especially useful as a growth and suspension medium for Staphylococci which is to be tested for coagulase production and when supplemented with yeast extract, hemin and menadione, it was found to be better in producing heavy growth of five species of *Bacteroides*. BHI agar is included in the Bacteriological Analytical Manual for food and cosmetics testing and is also recommended by APHA for the examination of foods and milk.

Brain Heart Infusion Broth is useful for cultivating a wide variety of microorganisms and also to prepare the inocula for antimicrobial susceptibility testing. Brain Heart Infusion Broth is also the preferred medium for anaerobic bacteria, yeasts and moulds. Addition of 10% defibrinated sheep blood, makes it useful for isolation and cultivation of Histoplasma capsulatum and other fungi. For selective isolation of fungi, addition of gentamicin and/or chloramphenicol is recommended. 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 energy source and disodium phosphate helps in maintaining the buffering action of the medium whereas sodium chloride maintains the osmotic equilibrium of the medium

#### Composition

Ingredients Grams / Litre

Beef Heart, Infusion from	250.00
Calf Brain, Infusion from	200.00
Proteose Peptone	10.00
Sodium Chloride	5.00
Dextrose	2.00
Disodium Phosphate	2.50

Final pH (at 25°C) 7.4± 0.2

#### Type of specimen

Pharmaceutical samples, Clinical samples-Blood & non-clinical samples.

#### **FACTORY & OFFICE**

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<sup>\*</sup>Formula adjusted, standardized to suit performance parameters



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## Specimen Collection and Handling

Ensure that all samples are properly labeled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

### **Directions**

- ✓ Suspend 37.00 g of powder in 1000 mL distilled water.
- ✓ Mix thoroughly.
- ✓ Boil to dissolve the medium completely. Avoid Overheating.
- ✓ Dispense in tubes or bottles as desired.
- ✓ Sterilize by autoclaving 121°C for 15 minutes or as per validated cycle.

## Storage and Stability

- ✓ Store Dehydrated culture media in cool, dry place at 10°C-30°C away from direct light.
- ✓ Store prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

### **Quality Control**

**Dehydrated Appearance:** Beige coloured, homogenous, free flowing powder **Prepared Appearance:** Light amber coloured, clear to slightly opalescent solution.

**Growth Promotion Test:** Growth promotion is carried out in accordance with USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18-24 hours.

**Growth Promoting Properties:** The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 24 hours.

### <u>Cultural Response:</u>

Organism	Type Culture	Growth	Incubation Temperature	Incubation Period
Enterococcus faecalis	ATCC 29212	Good	30°C -35°C	18 Hours
Neisseria gonorrhea	ATCC 49226	Good	30°C -35°C	18 Hours
Streptococcus pneumoniae	ATCC 6303	Good	30°C -35°C	18 Hours
Streptococcus pyogenes	ATCC 19615	Good	30°C -35°C	18 Hours
Candida albicans	ATCC 10231	Good	30°C -35°C	18 Hours
Staphylococcus aureus	ATCC 6538	Good	30°C -35°C	18 Hours
Staphylococcus aureus	ATCC 25923	Good	30°C -35°C	18 Hours

### Interpretation of Results

- ✓ Growth in tubes is indicated by turbidity.
- ✓ Examine cultures by gram stain method and subculture onto appropriate media like Soyabean Casein Digest Agar with 5% sheep blood or EMB Agar.
- ✓ Incubate the subcultures anaerobically if anaerobes are suspected.
- ✓ Enterococci grow in the medium containing 6.5% sodium chloride within 24-48 hours while

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nonenterococcal.

✓ group D Streptococci fail to grow.

## **Warranty**

✓ This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

### Disposal

Disposal of infectious material and material that comes in to contact with clinical sample must be decontaminated and dispose of by autoclaving or incineration or established laboratory procedures. User must be ensure safe disposal of used or unusable preparation of the products.

#### Reference

- 1. Rosenow, 1919, J. Dental Res; 1:205.
- 2. H. Wehr and J. Frank, 2004, Std. Methods for The Examination of Dairy Products, 17th Edition; APHA, Washington, DC.
- 3. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. AOAC, International, Gaithersburg, Md.

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