

## Technical Information

### Brain Heart Infusion with PABA and Agar

#### Product Code: DM 1213

**Application:** Brain Heart Infusion with PABA and agar is used for culturing blood from patients under Sulphonamide therapy. The addition of agar improves growth of anaerobes.

#### Composition\*\*

Ingredients	Gms / Litre
Calf brain, infusion from	200.000
Beef heart, infusion from	250.000
Peptic digest of animal tissue	10.000
Dextrose	2.000
Sodium chloride	5.000
Disodium phosphate	2.500
p-Amino benzoic acid (PABA)	0.050
Agar	1.000
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

Brain Heart Infusion w/ PABA and Agar is highly nutritious media which can support luxuriant growth of wide variety of microorganisms including bacteria, yeasts and moulds <sup>(1)</sup> It is often used for isolation of pathogens from clinical specimens especially blood <sup>(2)</sup>.

Para amino benzoic acid is an active inhibitor of the bacteriostasis produced by the sulfonamide drugs; It also serves as an accessory growth factor for several species of bacteria <sup>(3)</sup>. Therefore para amino benzoic acid incorporated in the medium helps to neutralize the effect of antimicrobials present in the blood of patients under sulphonamide therapy making isolation of organisms from blood easier. Agar in the medium reduces the oxygen tension and favors growth of facultative and obligatory anaerobic microorganisms. Peptic digest of animal tissue and calf brain and beef heart infusion provides carbon, nitrogen, amino acids and vitamins. Dextrose serves as a source of

#### Methodology

Suspend 38.05 grams of powder media in 1000 ml distilled water. Shake well and heat to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Colour and Clarity of prepared medium

Light amber coloured, clear to very slightly opalescent solution without any precipitate

##### Reaction

Reaction of 3.8% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH Range:- 7.20-7.60

##### Cultural Response/Characteristics

DM1213: Cultural characteristics observed with added 0.5 grams of sulphadiazine per litre after an incubation i) Bacteria at 35-37°C for 18-24 hours ii) Fungal at 25-30°C for 24-48 hours iii) Bacteroides species anaerobically for 18-48 hours .



Dehydrated Culture Media  
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth
<i>Bacteroides fragilis</i> ATCC25285	50-100	good-luxuriant
<i>Candida albicans</i> ATCC10231	50-100	good-luxuriant
<i>Neisseria meningitidis</i> ATCC13090	50-100	luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. MacFaddin J. F., 1985, Media for the Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore
2. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover F. C., (Eds.), 8th (Eds.), 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
3. Mirick G. S., 1943, Exp. Med., 78:255

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