



Tryptic Digest Broth (Fields Tryptic Digest Broth)

M1028

Tryptic Digest Broth is used for cultivation of fastidious microorganisms.

Composition**

Ingredients	Gms / Litre
Tryptic digest of beef heart	10.000
Sodium chloride	5.000
Dextrose	1.000
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 16 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool below 50°C and aseptically add sterile enrichment such as blood, serum or ascetic fluid as required.

Principle And Interpretation

Infusion based media are routinely employed for the cultivation of fastidious organisms. These media suffice complex nutritional requirements of most of the organisms. Field (1) formulated Tryptic Digest Broth for cultivation of fastidious microorganisms. Supplementation of the medium with serum, blood or ascitic fluid, it supports the growth of fastidious organisms such as, *Neisseria meningitides* , *Haemophilus influenzae* , *Streptococcus pneumoniae* etc. (2). Shepard et al (3) described its use for culturing *Streptococcus pneumoniae* and *Actinomycetes* .

Tryptic digest of beef heart provides carbonaceous and nitrogenous compounds and other essential growth nutrients for growth of fastidious microorganisms. Blood serum or ascetic fluid provides additional growth factors.

Quality Control

Appearance

Cream to light yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Basal Medium : Light yellow coloured clear solution. After addition of blood, cherry red coloured and with added serum or ascitic fluid, dark yellow coloured, opaque or clear to slightly opalescent solution respectively.

Reaction

Reaction of 1.6% w/v aqueous solution at 25°C. pH : 7.6±0.2

pH

7.40-7.80

Cultural Response

M1028: Cultural characteristics observed with added blood, serum or ascetic fluid after incubation at 35-37°C for 24 - 48 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Bordetella pertussis</i> ATCC 8467	50-100	luxuriant
<i>Haemophilus influenzae</i> ATCC 35056	50-100	luxuriant
<i>Neisseria meningitidis</i> ATCC 13090	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant

<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	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. Field V. J., 1956, SAB Newsletter, 22:8.
2. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press.
3. Shepard M. C. and Lunceford C. D., 1976, J. Clin. Microbiol., 3:613.1

Revision : 1 / 2011



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