

Technical Information

Tryptose Agar

Product Code: DM 1538

Application: Tryptose Agar is recommended for the isolation, cultivation and differentiation of primarily of *Brucella*, but also of Streptococci, Pneumococci, Meningococci and other pathogenic microorganisms.

Composition**

| Ingredients | Gms / Litre |
|---------------------|-------------|
| Tryptose | 20.000 |
| Dextrose | 1.000 |
| Sodium chloride | 5.000 |
| Agar | 15.000 |
| Final pH (at 25°C) | 7.2±0.2 |

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Huddleson used Tryptose media for the isolation of *Brucella* species from man⁽¹⁾. Comparing to conventionally used meat infusion media Tryptose containing media, have been used for the enumeration and isolation of *Brucella* species^(2, 3).

Tryptose Agar is also recommended by APHA⁽⁴⁾ and FDA⁽⁵⁾. This medium can be used as general purpose media for cultivation of wide variety of organisms. It can also be supplemented with defibrinated blood (sheep, horse) to prepare blood agar for the isolation of fastidious organisms like *Brucella*.

Dextrose is the source of energy. Tryptose serves as nitrogen source while sodium chloride maintains osmotic equilibrium. Blood Agar may be prepared by adding 5%v/v sterile defibrinated blood to molten sterile Tryptose Agar at 50°C.

Methodology

Suspend 41 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the media completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For blood media, aseptically add 5% v/v sterile defibrinated blood. Mix well and dispense as desired.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

DM 1538: Basal Medium : Yellow coloured, clear to slightly opalescent gel. With addition of 5% v/v sterile defibrinated blood, cherry red coloured opaque gel forms in Petri plates.

Reaction

Reaction of 4.1% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH Range:-

7.00-7.40

Cultural Response/Characteristics

DM 1538: Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours with added 5% v/v sterile defibrinated blood in presence of 10% Carbon dioxide (CO₂).



Dehydrated Culture Media
Bases / Media Supplements

Organism

Brucella melitensis
ATCC 4309

Growth

good-luxuriant

Brucella suis
ATCC 4314

good-luxuriant

Streptococcus pneumoniae
ATCC 6303

good-luxuriant

Streptococcus pyogenes ATCC 19615

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: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Huddleson I. F., 1943, Brucellosis in man and animals, rev., Ed., The Commonwealth Fund, New York, N.Y.
2. Ruiz Castañeda M., 1947, Proc. Soc. Exp. Biol. Med., 64:114.
3. Huddleson I. F., 1939, Brucellosis in Man and Animals, Oxford University Press, Oxford, England.
4. Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods. 4th Ed. American Public Health Association, Washington, D.C.
5. U.S. Food and Drug Administration, 1995, Bacteriological Analytical Manual, 8th Ed., AOAC International, Gaithersburg, Md.

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