



## Tryptose Broth

M177

### Intended Use:

For the isolation and enumeration of *Brucella* spp.

### Composition\*\*

Ingredients	Gms / Litre
Tryptose	20.000
Dextrose	1.000
Sodium chloride	5.000
Final pH ( at 25°C)	7.3±0.2

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

### Directions

Suspend 26 grams in 1000 ml distilled water. If desired, add 0.5 - 1% agar to the medium. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation

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

Tryptose Broth 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 containing medium for the isolation of fastidious organisms like *Brucella*. Tryptose Broth can be supplemented with 0.1% agar for the cultivation of anaerobes.

Dextrose is the source of energy. Tryptose serves as nitrogen source while sodium chloride maintains osmotic equilibrium.

### Type of specimen

Clinical sample : Blood

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5). After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions

In Vitro diagnostic use. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations

1. All presumptive anaerobic organisms must be identified by confirmatory test.

### Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Cream to yellow homogeneous free flowing powder

### Colour and Clarity of prepared medium

Basal Medium : Yellow coloured, clear solution. With addition of 5% v/v sterile defibrinated blood, cherry red coloured, opaque solution forms in tubes.

### Reaction

Reaction of 2.6% w/v aqueous solution at 25°C. pH : 7.3±0.2

### pH

7.10-7.50

### Cultural Response

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 (CO<sub>2</sub>).

Organism	Inoculum (CFU)	Growth
<i>Brucella melitensis</i> ATCC 4309	50-100	good-luxuriant
<i>Brucella suis</i> ATCC 4314	50-100	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	good-luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant

## Reference

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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