

TRYPTOSE BROTH
TM 476

For cultivation of *Brucella* species

Composition

Ingredients	Gms/Ltr.
Tryptose	20.00
Sodium chloride	5.00
Dextrose	1.00

* Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly- sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 26gms in 1000ml distilled water. Add 0.5 - 1% agar, if desired. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. On adding 5% sterile defibrinated blood into molten media under aseptic conditions. Mix properly and dispense into sterile Petri plates.

Appearance: Yellow colour, clear solution, with addition of 5%v / v sterile defibrinated blood (cherry red colour)

pH (at 25°C): 7.3 ± 0.2

Principle

TRYPTOSE BROTH is used for cultivation of *Brucella* species. Huddleson found Tryptose and developed as a nutritional supplement in media for the growth of *Brucella* sp. This media is to be equal to meat infusion media, providing uniformity for the cultivation and differentiation of fastidious microorganisms. Sodium chloride helps maintaining the osmotic balance. Dextrose is added as a source of fermentable carbohydrate. It can also be supplemented with defibrinated blood (sheep, horse) to prepare blood containing medium for the isolation of fastidious organisms like *Brucella* species. Tryptose Broth can be supplemented with 0.1% agar for the cultivation of aerobes and anaerobes in liquid media. McCullough et al. reported that addition of Thiamine and Iron salts increases the growth of *Brucella suis*.

Interpretation

Cultural characteristics observed after inoculating (10³CFU / ml), on incubation at 35-37°C for 48- 72 hours with added 5%v / v sterile defibrinated blood under the presence of 10% CO₂.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Brucella melitensis</i>	4309	10 ³	Good
<i>Brucella suis</i>	4314	10 ³	Good
<i>Streptococcus pyogenes</i>	19615	10 ³	Good

References

1. Huddleson I. F. Brucellosis in man and animals, rev., Ed., The Commonwealth Fund, New York, N.Y. (1943).
2. McCullough, W. G., R. C. Mills, E. J. Herbst, W. G. Roessler, and C. R. Brewer. Studies on the nutritional requirements of *Brucella suis*. J. Bacteriol. 53:5-15. (1947).