

## Technical Information

### Tryptose Broth, MiVeg

**Product Code : VM1177**

**Application:-** Tryptose Broth, MiVeg is recommended with or without the addition of blood or other substances for the isolation, cultivation and differentiation primarily of *Brucella*, but also of *Streptococci*, *Pneumococci*, *Meningococci* and other pathogenic microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
MiVeg hydrolysate No. 1	20.00
Dextrose	1.00
Sodium chloride	5.00
Final pH (at 25°C)	7.3 ± 0.2

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

### Principle & Interpretation

Tryptose Broth, MiVeg is prepared by adding vegetable peptones instead of animal based peptones thereby making the medium BSE/TSE risks free. Tryptose Broth, MiVeg is the modification of Tryptose Broth which Huddleson (1) used for the isolation of *Brucella* species from man. APHA (2) and Diagnostic Procedures and Reagents (3) recommended this medium for the isolation and cultivation of *Brucella* species with addition of thiamine.

Tryptose Broth is recommended for the cultivation of pathogenic and saprophytic bacteria. Like conventional medium(4), Tryptose Broth, MiVeg with addition of dextrose and thiamine hydrochloride favours the growth of some *Brucella* species. Dextrose serves as an energy source. MiVeg hydrolysate No.1 serves as nitrogen source while sodium chloride maintains osmotic equilibrium. If the infected human blood is incubated in Tryptose Broth, MiVeg then the isolation of *Brucella* from human blood is quite fast.

### Methodology

Suspend 26 grams of powder media in 1000 ml distilled water. If desired, add 0.5 - 1% agar to broth media. Mix thoroughly and heat to boiling to dissolve the medium 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 before dispensing into sterile test tubes.

### Quality Control

#### Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

#### Colour and Clarity of prepared medium

Basal medium yields yellow coloured clear to slightly opalescent 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 is pH 7.3 ± 0.2 at 25°C.

#### pH Range

7.1-7.5

### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours under 10 % CO<sub>2</sub>.

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Brucella abortus</i> (4315)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant
<i>Brucella melitensis</i> (4309)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant
<i>Brucella suis</i> (4314)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant
<i>Streptococcus pneumoniae</i> (6303)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant
<i>Streptococcus pyogenes</i> (19615)	10 <sup>2</sup> -10 <sup>3</sup>	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 day.

## Further Reading

1. Huddleson, 1939, Brucellosis In Man and Animals, Oxford Univ. Press, Oxford, U.K.
2. Standard Methods for the Examination of Dairy Products, 1948, 9<sup>th</sup> ed., APHA, New York, Ind.
3. Diagnostic Procedures and Reagents, 1950, 3<sup>rd</sup> ed., APHA Inc., New York.
4. Sanders and Huddleson, 1950, Diagnostic Procedures and Reagents, 3<sup>rd</sup> ed., APHA Inc., New York.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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