

## Technical Information

### Tryptose Agar, MiVeg

#### Product Code :VM1538

**Application:-** Tryptose Agar, 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
Agar	15.00
Final pH (at 25°C)	7.2 ± 0.2

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

#### Principle & Interpretation

Tryptose Agar, MiVeg is prepared by adding vegetable peptones instead of animal based peptones thereby making the medium BSE/TSE risks free. Tryptose Agar, MiVeg is the modification of Tryptose Agar 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 Agar is recommended for the cultivation of pathogenic and saprophytic bacteria. Like conventional medium (4), Tryptose Agar, 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. Blood Agar may be prepared by adding 5% v/v sterile defibrinated blood to the molten sterile Tryptose Agar, MiVeg at 50°C.

#### Methodology

Suspend 41 grams of powder media in 1000 ml distilled water. 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 petriplates.

#### Quality Control

##### Physical Appearance

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

##### Gelling

Firm, comparable with 1.5% Agar gel.

##### Colour and Clarity of prepared medium

Basal medium yields yellow coloured, clear to slightly opalescent gel. With addition of 5% v/v sterile defibrinated blood, cherry red coloured opaque gel forms in petriplates.

##### Reaction

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

##### pH Range

7.0-7.4

### 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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