

## Technical Information

### Spirolate MiVeg Broth, OMATA

**Product Code : VM1412**

**Application:-** Spirolate MiVeg Broth, OMATA is used for mass cultivation of *Treponema pallidum*, Reiter strain for antigen production and other studies.

#### Composition\*\*

Ingredients	Gms / Litre
MiVeg hydrolysate	15.0
Dextrose	5.0
Yeast extract	5.0
Sodium chloride	2.5
Sodium thioglycollate	0.5
L-Cysteine hydrochloride	1.0
Final pH (at 25°C)	7.1 ± 0.2

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

#### Principle & Interpretation

Spirolate MiVeg Broth, OMATA is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thereby making the medium free from BSE/TSE risks. Spirolate MiVeg Broth, OMATA is the modification of Spirolate Broth, OMATA which was formulated by Omata and Disraely (1) for cultivating oral *Fusobacteria*. This medium is used for the mass cultivation of Reiter *Treponemes* in a medium without agar for antigen production and other studies and also for the cultivation of other *Spirochaetes*. Reiter *Treponema* growth can be enhanced by supplementing the medium with fatty acids..

MiVeg hydrolysate, yeast extract supplies nitrogenous growth factors, minerals and vitamin B complex that supports the growth of Reiter *Treponemes*. Dextrose supply carbon to the organisms. Sodium chloride maintains osmotic equilibrium of the medium. Sodium thioglycollate in the medium reduces the oxygen tension which is optimum for the growth of *Treponemes*. L-Cysteine hydrochloride is a reducing agent. Addition of TEM-4TR provides fatty acids which enhances and stimulates the growth of Reiter *Treponemes*. Added serum provides extra nutrition to growing *Treponemes*.

#### Methodology

Suspend 29 grams of powder media in 1000 ml distilled water. Add 0.25 grams of TEM-4TR-Diacetyl Tartaric Acid Ester of Monoglycerides of Animal Origin (TEM-4TR) if desired. Mix well and heat with frequent stirring and boil for 1 minute. Dispense in test tubes filling them half full (about 15-20 ml in 6" inch tubes). If bigger containers are used, maintain the surface to volume ratio similar to that of tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool and add sterile inactivated 10% v/v sheep/ rabbit bovine serum.

#### Quality Control

##### Physical Appearance

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

##### Colour and Clarity of prepared medium

Light straw coloured, clear to slightly opalescent solution.

##### Reaction

Reaction of 2.9 % w/v aqueous solution is pH 7.1 ± 0.2 at 25°C.

##### pH Range

6.9-7.3



Dehydrated Culture Media  
Bases / Media Supplements

#### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

#### Organisms (ATCC)

*Treponema pallidum* (27087)

#### Growth

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. Omata and Disraeli, 1956, J. Bact., 72:677.

## Disclaimer :

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