Tryptose Serum Broth Base (Modified Newings Tryptose Broth Base)

Recommended for routine identification of *Mycoplasma* species.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
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<tbody>
<tr>
<td>Tryptose</td>
<td>20.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
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<tr>
<td>Anhydrous disodium phosphate</td>
<td>2.500</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 27.50 grams in 1000 ml distilled water containing 5 ml glycerol. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add the rehydrated contents of one vial of Mycoplasma Selective Supplement (FD334) and 130 ml of pig serum (RM10415) (Inactivate at 56°C for not more than 30 minutes). Mix well and distribute into sterile tubes or flasks as desired.

**Principle And Interpretation**

Tryptose Serum Broth Base demonstrated by Newing & McLeod, 1958 was later modified by Gourlay (1964). This medium is as described by Davies (1).

This medium is recommended for the cultivation of *Mycoplasma*. The medium ingredients and all the supplements should be free of any toxic substances even in small amounts. Many *Mycoplasma* require serum for their good growth and also presence of antibiotic is necessary to prevent the growth of contaminating organisms. Mostly the *Mycoplasma* species are aerobic or facultatively anaerobic but some are microaerophilic. Few are anaerobic saprophytic *Mycoplasma* which grow best at 22-35°C while pathogenic strains grow at 35°C.


**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Yellow coloured clear solution in tubes

**Reaction**

Reaction of 2.1% w/v aqueous solution at 25°C. pH: 7.8±0.2

**Cultural Response**

Cultural characteristics observed in presence of 10% Carbon dioxide with added Pig serum (RM10415), inactivated at 56°C for not more than 30 minutes and Mycoplasma Selective Supplement (FD334), after an incubation at 22-35°C for 48 hours.

**Cultural Response**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
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<tbody>
<tr>
<td><em>Mycoplasma bovis</em> ATCC 25523</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Mycoplasma gallinarium</em> ATCC 19708</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
**Mycoplasma pneumoniae**  good-luxuriant  
*ATCC 15531*

**Streptococcus pneumoniae**  good-luxuriant  
*ATCC 6303*

### Storage and Shelf Life
Store below 30°C in tightly closed container. Use freshly prepared medium. Use before expiry period on the label.

### Reference
1. Davis, G and W.C.S. Read; J.Hyg., Camb. (1968, A modification of the growth-inhibition test and its use for detecting Mycoplasma mycoides var.mycoides