Antibiotic Sulphonamide Sensitivity Test Agar (ASS Agar) **M1485**

Antibiotic Sulphonamide Sensitivity Test Agar is used for testing the antimicrobial effectiveness of antibiotics and sulphonamides as well as for detecting the presence of antimicrobial substances in milk, urine and other fluids.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteose peptone</td>
<td>10.000</td>
</tr>
<tr>
<td>Beef extract</td>
<td>10.000</td>
</tr>
<tr>
<td>Glucose</td>
<td>2.000</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>3.000</td>
</tr>
<tr>
<td>Disodium phosphate</td>
<td>2.000</td>
</tr>
<tr>
<td>Sodium acetate</td>
<td>1.000</td>
</tr>
<tr>
<td>Adenine</td>
<td>0.010</td>
</tr>
<tr>
<td>Guanine</td>
<td>0.010</td>
</tr>
<tr>
<td>Uracil</td>
<td>0.010</td>
</tr>
<tr>
<td>Xanthine</td>
<td>0.010</td>
</tr>
<tr>
<td>Agar</td>
<td>12.000</td>
</tr>
</tbody>
</table>

Final pH (at 25°C) 7.2±0.2

**Directions**

Suspend 40.04 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

Ericsson and Sherris (1) on behalf of the German Institute of Standardisation (2) and World Health Organization (WHO) developed an accurate quantitative method for antibiotic sensitivity testing. WHO's Expert Committee on Antibiotics have set certain requirements to be fulfilled by Sensitivity Test Agar. Antibiotic Sulphonamide Sensitivity Test Agar (ASS Agar) fulfils these criteria. This media can be used for detecting the presence of antimicrobial substances in milk, urine and other fluids as cited by Ansorg and Sogard (3, 4). The presence of various amino acids makes the media favourable for growth and testing of various fastidious organisms like *Listeria*, *Streptococci* and *Neisseria* etc. Proteose peptone and beef extract provides necessary nutrients to the organisms. Glucose serves as the carbon source. Disodium phosphate helps in maintaining the pH and preventing the effect of pH change on antibiotic diffusion. The medium constituents do not inhibit the growth of the test organism. Therefore, the zones of inhibition obtained are solely due to the antibiotic used. Standard Methods are employed for sensitivity testing.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Gelling**

Firm, comparable with 1.2% Agar gel.

**Colour and Clarity of prepared medium**

Yellow coloured, clear to slightly opalescent gel forms in Petri plates

**Reaction**

Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.2±0.2

**pH**

7.00-7.40

**Cultural Response**

M1485: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.
Organism | Growth
--- | ---
*Bacillus subtilis* ATCC 6633 | good
*Bacteroides vulgatus* ATCC 8482 | good
*Enterococcus faecalis* ATCC 29212 | good
*Staphylococcus aureus* ATCC 25923 | good
*Streptococcus pyogenes* ATCC 19615 | good

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

### Reference
2. DIN Deutsches Institut für Normung e. V.: Methoden zur Empfindlichkeitsprüfung von bakteriellen Krankheitserregern (außer Mykobakterien) gegen Chemotherapeutika