



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**

Ingredients	Gms / Litre
Proteose peptone	10.000
Beef extract	10.000
Glucose	2.000
Sodium chloride	3.000
Disodium phosphate	2.000
Sodium acetate	1.000
Adenine	0.010
Guanine	0.010
Uracil	0.010
Xanthine	0.010
Agar	12.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

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
Cultural Response	
<i>Bacillus subtilis</i> ATCC 6633	good
<i>Bacteroides vulgatus</i> ATCC 8482	good
<i>Enterococcus faecalis</i> ATCC 29212	good
<i>Staphylococcus aureus</i> ATCC 25923	good
<i>Streptococcus pyogenes</i> 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

1. Ericsson H. M., Sherris J. C., Acta. Path. Microbiol. Scand. B. Suppl. 217, 1971.
2. DIN Deutsches Institut für Normung e. V.: Methoden zur Empfindlichkeitsprüfung von bakteriellen Krankheitserregern (außer Mykobakterien) gegen Chemotherapeutika
3. Ansorg R., Zippel H., u. Thomssen R., Zbl. Bakt. Hyg., I. Orig., A 230, 492-507 (1975).
4. Sogaard H., Andersen M., Huusom R., Dansk. Vet. Tidsskr., 61; 593-595 (1978).

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