



Technical Data

Antibiotic Sulphonamide Sensitivity Test Agar (ASS Agar)

M1485

Intended Use:

Recommended 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
HM peptone B #	10.000
Dextrose (Glucose)	2.000
Sodium chloride	3.000
Disodium hydrogen 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

Equivalent to Beef extract

Directions

Suspend 40.04 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. 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 HM peptone B extract provides nitrogen and carbon source, long chain amino acids, vitamins and other necessary nutrients to the organisms. Glucose serves as the carbon source. Disodium hydrogen 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

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<i>Bacillus subtilis</i> ATCC 6633	50-100	good	50-70%
<i>Bacteroides vulgatus</i> ATCC 8482	50-100	good	50-70%
<i>Enterococcus faecalis</i> ATCC 29212	50-100	good	50-70%
<i>Staphylococcus aureus</i> ATCC 25923	50-100	good	50-70%
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good	50-70%

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).

Revision : 02 / 2016

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.