



## Sensitivity Test Medium

M296

Sensitivity Test Medium is designed for use in sensitivity tests with sulphonamides and other antimicrobial agents.

### Composition\*\*

Ingredients	Gms / Litre
Proteose peptone	10.000
Veal, infusion from	10.000
Dextrose	10.000
Sodium chloride	3.000
Disodium phosphate	2.000
Sodium acetate	1.000
Adenine sulphate	0.010
Guanine	0.010
Uracil	0.010
Xanthine	0.010
Agar	15.000
Final pH ( at 25°C)	7.3±0.2

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

### Directions

Suspend 51.04 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 118-121°C for 15 minutes. Cool to 50°C and add sterile serum or blood aseptically if desired. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Sensitivity testing has been used for several decades as a guide for antimicrobial therapy of serious infections. Such testing is most frequently performed when bactericidal antimicrobial agent therapy is considered necessary. It has also been used to ensure that the infecting organism is killed by (not tolerant to) the bactericidal compounds. Sensitivity Test Medium is designed for use in sensitivity tests with sulphonamides and other antimicrobial agents (1).

Incorporation of sodium acetate and veal infusion in this medium renders the medium to give better defined zones of inhibition in sensitivity plate tests. Proteose peptone supplies the nitrogenous nutrients to the organisms. Addition of nucleoside bases supports the growth of common gram-positive and gram-negative organisms. Dextrose serves as the carbohydrate and energy source for many microorganisms. The medium is well buffered and isotonic due to the inclusion of disodium phosphate and sodium chloride respectively.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 5.1% w/v aqueous solution at 25°C. pH : 7.3±0.2

#### pH

7.10-7.50

#### Cultural Response

M296: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
<b>Cultural Response</b>			
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	>=70%
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	good-luxuriant	>=70%
<i>Bacillus subtilis</i> ATCC 6633	50-100	good-luxuriant	>=70%
<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant	>=70%
<i>Enterococcus faecalis</i> ATCC 29212	50-100	good-luxuriant	>=70%

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

### Reference

1. Atlas R.M., 1993, Handbook of Microbiological Media, CRC Press, Inc., Boca Raton.

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