

## Diagnostic Sensitivity Test Agar (D.S.T)

Medium for antimicrobial susceptibility testing.

TYPICAL FORMULA	(g/l)
Proteose Peptone	10.0
Peptone	10.0
Dextrose	2.0
Sodium Chloride	3.0
Disodium Phosphate	2.0
Sodium Acetate	1.0
Adenine Sulfate	0.01
Guanine Hydrochloride	0.01
Uracil	0.01
Xanthine	0.01
Thiamine	0.0002
Agar	15.0
Final pH 7.4 ± 0.2 at 25°C	

### DESCRIPTION

Diagnostic Sensitivity Test Agar (D.S.T.) is a medium used for the isolation of organisms from clinical samples and susceptibility testing.

### PRINCIPLE

Peptones provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients which support the growth of microorganism. Dextrose is a source of energy. Sodium chloride maintains the osmotic balance of the medium. Dipotassium phosphate and sodium acetate act as buffering system. Adenine, guanine, uracil and xanthine are incorporated to improve the performance of the medium as an antimicrobial test medium. Thiamine enhances growth of several organisms, especially staphylococci. Agar is the solidifying agent. Supplementation with defibrinated horse blood allows growth of certain fastidious organisms.

### PREPARATION

Suspend 43 g of powder in 1 liter of deionized or distilled water. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. For blood agar, cool the base to 45-50°C and add 7% sterile defibrinated horse blood (ref. 83396), aseptically. Pour in Petri dishes.

### TECHNIQUE

Inoculate the plates by streaking directly the sample over the agar surface. Apply the antibiotic discs onto the agar. Incubate aerobically at 35 ± 2°C for 18-24 hours.

### INTERPRETATION OF RESULTS

Measure the diameter of the inhibition zones and interpret the results.

### STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *in vitro* diagnostic use only and must be used by properly trained operators.

### DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

### REFERENCES

- Blattner F.R. et al (1977) Science 196:161.
- Marshall J.H. et al (1960) J. Hyg. Camb. 58:367.



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## PRODUCT SPECIFICATIONS

### NAME

Diagnostic Sensitivity Test Agar (D.S.T.)

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGING

Ref.	Content	Packaging
610331	500 g	500 g of powder in plastic bottle

### pH OF THE MEDIUM

7.4 ± 0.2

### USE

Diagnostic Sensitivity Test Agar (D.S.T.) is a medium used for the isolation of organisms from clinical samples and susceptibility testing

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

#### Powder medium

Appearance: free-flowing, homogeneous

Colour: yellow

#### Ready-to-use medium

Appearance: clear to slightly opalescent

Colour: amber

### SHELF LIFE











4 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control  
 Inoculum for productivity: 50-100 CFU  
 Incubation Conditions: 18-24 h at 35 ± 2°C, in aerobiosis

Microorganism		Growth
<i>Enterococcus faecalis</i>	ATCC® 29212	Good
<i>Pseudomonas aeruginosa</i>	ATCC® 27853	Good

### TABLE OF SYMBOLS

 <b>LOT</b>	Batch code	 <b>IVD</b>	<i>In vitro</i> Diagnostic Medical Device		Manufacturer		Use by		Fragile, handle with care
 <b>REF</b>	Catalogue number		Temperature limitation		Contains sufficient for <n> tests		Caution, consult instructions for use		Do not reuse



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