OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

Diagnostic Sensitivity Test Agar (DST Agar)

Principle

Diagnostic Sensitivity Test Agar recommended for diagnostic sensitivity test. Media composed of Proteose peptone and veal infusion solids provides the nitrogen, vitamins, carbon and amino acids. Dextrose is the source of carbohydrate. Sodium chloride maintains osmotic balance. Disodium hydrogen phosphate and sodium acetate act as buffering agent. Adenine sulphate, Guanine hydrochloride, uracil and xanthine improve the medium performance for antimicrobial testing. Thiamin enhances the growth of certain organisms, especially S*taphylococci*. Agar is used as a solidifying agent

Use: For antibiotic sensitivity testing of fastidious pathogens like Neisseria, Streptococcus & Haemophillus species with blood enrichment.

Contents*

Ingredients	Gram/Liter
Proteose peptone	10.000
Veal Infusion solids	10.000
Dextrose	2.000
Sodium chloride	3.000
Disodium hydrogen phosphate	2.000
Sodium acetate	1.000
Adenine sulphate	0.010
Guanine hydrochloride	0.010
Uracil	0.010
Xanthine	0.010
Thiamin	0.00002
Agar	15.0
pH at 25˚C	7.4±0.2

*** Formula adjusted for optimum performance and parameters**

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Directions: Dissolve 43.04 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45 °C and distribute aseptically in desired. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Clinical samples and materials

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Beige colored free flowing, homogeneous powder**
Reaction of 4.30% solution	**7.4 ±0.2 at 25 ˚C**
pH	**7.20- 7.60**
Gelling	**Firm comparable with 1.5% agar gel**
Color and clarity of ready medium	**Pale yellow colored opalescent gel**
Growth Promotion properties	**Best at ≤ 100 CFU at 35 ± 2.0°C for 18-72 h**
Indicative properties	**Optimum at ≤ 100 CFU at 35 ± 2.0°C for 18-48 h**
Negative control	**Performed using sterile distilled water**

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Different Microbial Response

Prepare media as per the label directions. Inoculate and incubate the plates at 35 ± 2.0°C for 18-24 hours.

Organism	ATCC	Inoculum (CFU)	Growth	Recovery
Escherichia coli	8739	50-100	Luxuriant	≥ 70%
Enterococcus faecalis	14506	50-100	Luxuriant	≥ 70%
Micrococcus luteus	10240	50-100	Luxuriant	≥ 70%
Proteus mirabilis	12453	50-100	Luxuriant	≥ 70%
Pseudomonas aeruginosa	27853	50-100	Luxuriant	≥ 70%
Salmonella typhimurium	14028	50-100	Luxuriant	≥ 70%
Shigella flexneri	9199	50-100	Luxuriant	≥ 70%
Staphylococcus aureus	25923	50-100	Luxuriant	≥ 70%

Storage and Shelf Life: **The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.**

Disposal: **To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.**

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