

TECHNICAL SHEET

BS001	ANTIBIOTIC ASSAY MEDIUM NO.1 (SEED AGAR)			
Formula				
Ingredients:			gms/lit.	
Peptic digest of animal tissue	6.00			
Casein enzymic hydrolysate	4.00			
Yeast extract	3.00			
Meat extract B #	1.50			
Dextrose	1.00			
Agar	15.00			
# Equivalent to Beef extract				
Final pH (at 25°C) :		6.6 ± 0.2		
Directions:				
Suspend 30.5 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. Advice: Recommended as a inoculum medium for Amikacin, Bacitracin, Capreomycin, Cephalothin, Cephaperin, Chloramphenicol, Chlortetracycline, Cloxacillin, Cycloserine, Colistimethate sodium, Colistin, Demeclocycline, Dihydrostreptomycin, Erythromycin, Framycetin, Gentamicin, Kanamycin, Kanamycin B, Kanamycin sulphate, Lyme cycline, Methacycline, Nafcillin, Neomycin, Netilmicin, Novobiocin, Oxytetracycline, Paromomycin, Penicillin-G, Rifamycin sodium, Rolitetracycline, Sisomycin Spiramycin, Streptomycin Tetracycline, Tobramycin, Troleandomycin, Tylosin.				
Principle :				
Antibiotic Assay Medium No.1 is used in the microbiological assay of β-lactam and other antibiotics. These media are prepared according to the specifications detailed in various pharmacopoeias and by the FDA. Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar cooled to 40-45°C and spread evenly over the surface of solidified base agar. After incubation the concentration of the antibiotic being assayed is determined by measuring the zone of inhibition obtained, with that of reference standard antibiotic. All conditions in the microbiological assay must be carefully controlled. The use of standard culture media in the test is one of the important steps for good results. Nutrients and growth factors are supplied by the ingredients like Peptic digest of animal tissues, Casein enzymic hydrolysate, Yeast extract, meat extract etc. Dextrose is a carbon and energy source. Agar is the solidifying agent.				
QC Tests - (I) Dehydrated Medium				
Colour :		Cream to yellow		
Appearance :		Homogeneous Free Flowing powder		
(II) Rehydrated medium				
pH (post autoclaving/heating):		6.6 ± 0.2		
Colour (post autoclaving/heating) :		Yellow		
Clarity (post autoclaving/heating) :		clear to slightly opalescent		
(III) Q.C. Test Microbiological				
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.				
MICROORGANISM (ATCC)	Inoculum (CFU)	Growth	Recovery	Inoculum medium Assay medium & inoculum
Bacillus subtilis (6633)	50-100	Luxuriant	>=70%	Framycetin, Josamycin, Josamycin propionate, Kanamycin B, Spiramycin, Streptomycin, Vancomycin (Assay medium: Streptomycin, Vancomycin)
Bordetella bronchiseptica (4617)	50-100	Luxuriant	>=50%	Colistimethate sodium, Colistin, Polymyxin B
Escherichia coli (10536)	50-100	Luxuriant	>=70%	Chloramphenicol
Bacillus cereus (11778)	50-100	Luxuriant	>=70%	Oxytetracycline, Tetracycline
Bacillus pumilus (14884)	50-100	Luxuriant	>=70%	Chlortetracycline, Framycetin, Kanamycin sulphate
Klebsiella pneumoniae (10031)	50-100	Luxuriant	>=70%	Capreomycin, Dihydrostreptomycin, Neomycin, Streptomycin, Troleandomycin
Micrococcus luteus (9341)	50-100	Luxuriant	>=70%	Erythromycin, Rifamycin sodium Erythromycin (Assay medium & inoculum: Bacitracin)
Micrococcus luteus (10240)	50-100	Luxuriant	>=70%	-
Pseudomonas aeruginosa (25619)	50-100	Luxuriant	>=70%	Carbenicillin

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Staphylococcus aureus (29737)	50-100	luxuriant	>=70%	Amikacin, Cephothin, Cephapirin, Chlotetracycline, Cloxacillin, Cycloserine, Demeclocycline, Doxycycline, Kanamycin, Methacycline, Nafcillin, Oxytetracycline, Penicillin-G, Rolitetracycline, Tetracycline, Tobramycin, Tylosin Gentamicin, Neomycin, Netilmicin, (Assay medium & inoculum: Cephalothin, Cephapirin, Cloxacillin, Nafcillin, Penicillin-G)		
Staphylococcus epidermidis (12228)	50-100	luxuriant	>=70%	Novobiocin, Sisomycin, Paromomycin		
Precautions :	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.					
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.					
Use:	Antibiotic Assay Medium No.1 (Seed Agar) is used in the microbiological assay of beta-lactam and other antibiotics.					
Storage:	Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.					
Packing :	500/100 gm bottle					
Product profile:	Reconstitution	Quantity on preparation (500g)	(100g)	pH (25°C)	Supplement	Sterilization
BS001	30.5 g/l	16.39 L	3.28L	6.6 ± 0.2	Nil	121°C / 15 minutes

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 BIOMARKLABORATORIES publications.

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