

B172	DIAGNOSTIC SENSITIVITY TEST AGAR (D.S.T. AGAR)	
Formula		
Ingredients:	gms/lit.	
Proteose peptone	10.00	
Veal infusion solids	10.00	
Dextrose	2.00	
Sodium chloride	3.00	
Disodium phosphate	2.00	
Sodium acetate	1.00	
Adenine sulphate	0.01	
Guanine hydrochloride	0.01	
Uracil	0.01	
Xanthine	0.01	
Aneurine	0.00002	
Agar	15.00	
Final pH (at 25°C) : 7.4 ± 0.2		
Directions :		
Suspend 43.04 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For blood agar, cool the base to 45-50°C and add 7% v/v sterile defibrinated horse blood aseptically. Mix well with gentle rotation and pour into sterile Petri plates.		
Principle :		
Peptone is the source of nitrogen. The medium is nutritionally rich due to presence of amino acid bases and glucose. The salts present, help in avoiding sudden pH shifts due to acid production which might affect the susceptibility test and haemolytic reactions and the MIC values of pH susceptible antimicrobials. Aneurine acts as vitamin source. Addition of the bases like adenine, guanine, uracil and xanthine improve the antibiotic testing performance of the medium. 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) :	7.4 ± 0.2	
Colour (post autoclaving/heating) :	A) Basal medium : Cream to medium amber B) After addition of blood: Cherry red	
Clarity (post autoclaving/heating) :	A) Clear to slightly opalescent B) Opaque	
(III) Q.C. Test Microbiological		
Cultural characteristics observed after	18-24 hrs.at 35-37°C.	
MICROORGANISM (ATCC)	GROWTH (WITHOUT ANTIBIOTICS)	
Escherichia coli (25922)	Luxuriant	
Micrococcus luteus (10240)	Luxuriant	
Neisseria meningitides (13090)	Luxuriant (with the addition of blood)	
Proteus mirabilis (25933)	Luxuriant	
Salmonella typhi (6539)	Luxuriant	
Shigella flexneri (12022)	Luxuriant	
Staphylococcus aureus (25923)	Luxuriant	
Streptococcus faecalis (29212)	Luxuriant	
Streptococcus pyogenes (19615)	Luxuriant (with the addition of blood)	
Streptococcus pneumoniae (6303)	Luxuriant	

TECHNICAL SHEET

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.				
	2. Inoculum density affects inhibition zone. Heavy inoculum may result in smaller zones while scanty growth may result in enlarged zones.				
	3. The salts present, helps in avoiding sudden pH shifts due to acid production, which might affect the susceptibility test and haemolytic reactions and the MIC values of pH susceptible antimicrobials.				
Use :	For antibiotic sensitivity testing of fastidious pathogens such as Neisseria, Streptococcus and Haemophilus species with blood enrichments.				
Storage :	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
Packing :	500 gm bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B172	43.04 g/l	11.617 L	7.4 ± 0.2	7% v/v sterile defibrinated horse blood	121°C / 15 minutes