

<b>B172</b>		<b>DIAGNOSTIC SENSITIVITY TEST AGAR (D.S.T. AGAR)</b>	
<b>Formula</b>			
<b>Ingredients:</b>		<b>gms/lit.</b>	
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			
<b>Directions :</b>			
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.			
<b>Principle :</b>			
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.			
<b>QC Tests – (I) Dehydrated Medium</b>			
Colour :		Cream to yellow	
Appearance :		Homogeneous Free Flowing powder	
<b>(II) Rehydrated medium</b>			
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	
<b>(III) Q.C. Test Microbiological</b>			
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(with the addition of blood)	

Refer disclaimer Overleaf

<b>Precautions :</b>	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<b>Limitations :</b>	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.				
<b>Use :</b>	For antibiotic sensitivity testing of fastidious pathogens such as Neisseria, Streptococcus and Haemophilus species with blood enrichments.				
<b>Storage :</b>	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
<b>Packing :</b>	500 gm bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
<b>B172</b>	43.04 g/l	11.617 L	7.4 ± 0.2	7% v/v sterile defibrinated horse blood	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 BIOMARK LABORATORIES publications.

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