

**BIOMARK Laboratories-INDIA**

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**TECHNICAL SHEET**

<b>B612</b>	<b>MANNITOL SALT AGAR</b>					
<b>Formula</b>						
<b>Ingredients :</b>		<b>gms/lit.</b>				
Proteose peptone		10.00				
Beef extract		1.00				
Sodium chloride		75.00				
D-Mannitol		10.00				
Phenol red		0.025				
Agar		15.00				
Final pH (at 25°C) : 7.4 ± 0.2						
<b>Directions :</b>						
Suspend 111gms. in 1000 ml. distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Mix well & dispense as desired.						
<b>Principle:</b>						
Mannitol Salt Agar contains Proteose Peptone and Beef Extract as sources of carbon, nitrogen, vitamins and minerals. D-Mannitol is the carbohydrate source. Sodium Chloride, in high concentration, inhibits most bacteria other than staphylococci. Phenol Red is the pH indicator. Agar is the solidifying agent. Bacteria that grow in the presence of a high salt concentration and ferment mannitol produce acid products which turn the phenol red pH indicator from red to yellow. Typical pathogenic staphylococci (coagulase – positive staphylococci) ferment mannitol and form yellow colonies with yellow zones around the colonies. Typical non – pathogenic staphylococci do not ferment mannitol and form red colonies.						
<b>QC Tests – (I)Dehydrated Medium</b>						
	Colour :	Light yellow to pink				
	Appearance :	Homogeneous Free Flowing powder				
<b>(II)Rehydrated medium</b>						
	pH (post autoclaving/heating) :	7.4 ± 0.2				
	Colour (post autoclaving/heating) :	Orangish red to red				
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent				
<b>(III) Q.C. Test Microbiological</b>						
Cultural characteristics observed after 18 - 72 hours at 35 - 37°C.						
	MICROORGANISM (ATCC )	GROWTH	COLOUR OF COLONY			
	Staphylococcus aureus (25923)	Luxuriant	Yellow/white colonies surrounded by yellow zone			
	Staphylococcus aureus (6538)	Luxuriant	Yellow/white colonies surrounded by yellow zone			
	Staphylococcus epidermidis (14490)	Fair to good	Red			
	Staphylococcus epidermidis (12228)	Fair to good	Red			
	Escherichia coli (25922)	Inhibited	---			
	Escherichia coli (8739)	Inhibited	---			
	Proteus mirabilis (12453)	None-poor	Yellow			
<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.				
<b>Use :</b>		For selective isolation of pathogenic Staphylococci as per I.P.				
<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>B612</b>		111g/l	4.05L	7.4 ± 0.2	Nil	121°C / 15 minutes