

BIOMARK Laboratories-INDIA

www.biomarklabs.com

TECHNICAL SHEET

B251	MANNITOL SALT BROTH					
Formula						
Ingredients:		gms/lit.				
Proteose peptone		10.00				
Beef extract		1.00				
Sodium chloride		75.00				
D-Mannitol		10.00				
Phenol red		0.025				
Final pH (at 25°C): 7.4 ± 0.2						
Directions :						
Suspend 96.02 grams in 1000 ml distilled water. Heat if necessary, to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Note: This product contains 7.5% sodium chloride as one of its ingredients. On repeated exposure to air and absorption moisture sodium chloride has tendency to form lumps, therefore we strongly recommend storage in tightly closed containers in dry place away from bright light.						
Principle :						
The medium contains beef extract and proteose peptone which makes it very nutritious as they provide essential growth factors and trace nutrients. Many other bacteria except Staphylococci are inhibited by 7.5% sodium chloride. Mannitol is the fermentable carbohydrate source. The differential action of the medium is attributed to D-Mannitol Staphylococcus aureus ferments mannitol to produce yellow coloured medium. Most coagulase-negative species of Staphylococci and Micrococci do not ferment mannitol and therefore the medium remains red in colour. The colour of the medium is due to the reactivity of phenol red to the pH of the medium; phenol red is red at pH 8.4 and yellow at 6.8. Presumptive Staphylococcus showing yellow coloured medium should be further tested for production of coagulase.						
QC Tests – (I) Dehydrated Medium						
Colour :		Light pink				
Appearance :		Homogeneous Free Flowing powder				
(II) Rehydrated medium						
pH (post autoclaving/heating) :		7.4 ± 0.2				
Colour (post autoclaving/heating) :		Orangish red to red				
Clarity (post autoclaving/heating) :		Red coloured clear solution in tubes				
(III) Q.C. Test Microbiological						
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.						
MICROORGANISM (ATCC)		GROWTH	COLOUR OF MEDIUM			
Staphylococcus aureus (25923)		Good -Luxuriant	Yellow			
Staphylococcus epidermidis (12228)		Fair to good	Red			
Escherichia coli (25922)		Inhibited	---			
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 :		Used for the selective isolation of presumptive pathogenic Staphylococci.				
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
B251	96.02 g/l	5.207 L	7.4 ± 0.2	Nil	121°C / 15 minutes	