

**TECHNICAL SHEET**

<b>B1441</b>	<b>MAC CONKEY SORBITOL AGAR BASE</b>	
<b>Formula</b>		
<b>Ingredients:</b>	<b>gms/lit.</b>	
Tryptone	17.00	
Meat Peptone	3.00	
D-Sorbitol	10.00	
Bile salt mixture	1.50	
Sodium chloride	5.00	
Neutral red	0.03	
Crystal violet	0.001	
Agar	13.50	
Final pH (at 25°C): 7.1 ± 0.2		
<b>Directions:</b>		
Suspend 50.03 gram in 990 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. AVOID OVERHEATING. Cool to 45-50°C and aseptically add rehydrated contents of 2 vials of Tellurite cefixime Supplement (BF122). Mix well and pour into sterile Petri plates.		
<b>Principle:</b>		
Tryptone and meat peptone supply necessary nutrients like nitrogenous and carbonaceous compounds, minerals, vitamins and trace ingredients for the growth of organisms. Crystal violet and bile salt mixture present in the medium inhibit growth of gram-positive bacteria. The addition of cefixime and tellurite, significantly reduces the number of sorbitol non-fermenters that are to be screened during the attempted isolation of E. coli O157:H7. Sodium chloride maintains osmotic equilibrium. Neutral red is an indicator. D-Sorbitol is the fermentable carbohydrate.		
This medium is recommended for isolation of enteropathogenic Escherichia coli O157: H7, which ferments lactose but does not ferment sorbitol, hence produces colourless colonies		
MacConkey Sorbitol Agar however should not be solely used to detect pathogenic E. coli O157: H7 strains as some non-toxic strains will also not ferment sorbitol. The growth of E. coli O157:H7 on MacConkey Agar with Sorbitol shows colourless colonies and most of the faecal flora ferment sorbitol and appear pink. MacConkey Agar with Sorbitol therefore permits ready recognition of E. coli O157:H7.		
<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) :	7.1 ± 0.2	
Colour (post autoclaving/heating) :	Purplish red	
Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
<b>(III) Q.C. Test Microbiological</b>		
Cultural characteristics observed with added BF122 after incubation for 18 - 24 hrs. at 36-38°C.		
MICROORGANISM (ATCC )	GROWTH	COLOUR OF COLONY
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Escherichia coli ATCC 25922	Partial inhibition w/ growth of some pink colonies	Pinkish red

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Escherichia coli ATCC 8739	Partial inhibition w/ growth of some pink colonies	Pinkish red
Staphylococcus aureus ATCC 25923	Inhibited	--
Staphylococcus aureus ATCC 6538	Inhibited	--
Escherichia coli O157:H7 ATCC 700728	Good	Transparent colonies with a pale yellowish-brown appearance
<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>	Recommended as the selective medium for isolation and detection of Escherichia coli O157:H7 from food, animal feeding stuffs and clinical samples. The composition and performance criteria are in accordance with ISO 16654:2001 & / Amd 2:2023				
<b>Storage:</b>	Dehydrated medium- below 30 ° C Prepared mediums– 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>B1441</b>	50.03 G/L	9.80L	7.1± 0.2	(BF122) Tellurite cefixime supplement	Autoclaving at 121°C for 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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