

BIOMARK Laboratories – INDIA

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TECHNICAL SHEET

B238	Mac Conkey Agar w/0.15% Bile Salts, CV & NaCl		
Formula			
Ingredients :		gms/lit.	
Peptone		1.50	
Tryptone		1.50	
Gelatin peptone		17.00	
Lactose		10.00	
Bile Salts		1.50	
Sodium chloride		5.00	
Crystal violet		0.001	
Neutral red		0.03	
Agar		15.00	
Final pH (at 25°C) : 7.1± 0.2			
Directions :			
Suspend 51.53 grams in 1000 ml distilled water. Heat to boiling with gentle swirling to dissolve the agar completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Avoid overheating. Cool to 45 - 50°C and pour into sterile Petri plates. The surface of the medium should be dry when inoculated.			
Principle: Peptone, Tryptone and gelatin peptone are sources of nitrogen, carbon, long chain amino acids and other nutrients. Lactose is a fermentable carbohydrate; Sodium chloride maintains the osmotic equilibrium. Bile salts and crystal violet are selective agents that inhibit growth of gram-positive organisms. Neutral red is the pH indicator dye. Lactose-fermenting strains grow as red or pink colonies and may be surrounded by a zone of acid precipitated bile. The red colour is due to production of acid from lactose, absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8. Lactose non-fermenting strains, such as Shigella and Salmonella are colourless, transparent and typically do not alter appearance of the medium.			
QC Tests – (I) Dehydrated Medium			
	Colour :	Pinkish beige	
	Appearance :	Homogeneous Free Flowing powder	
(II) Rehydrated medium			
	pH (post autoclaving/heating) :	7.1 ± 0.2	
	Colour (post autoclaving/heating) :	Red with purplish tinge	
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
(III) Q.C. Test Microbiological			
	Cultural response was observed after an incubation at 30-35°C for 18-72 hours.		
	MICROORGANISM (ATCC)	GROWTH	COLOUR OF COLONY
	Enterobacter aerogenes (13048)	Luxuriant	Pink to red
	Escherichia coli (25922)	Luxuriant	Pink to red with bile precipitate
	Escherichia coli (NCTC 9002)	Luxuriant	Pink to red with bile precipitate
	Escherichia coli (8739)	Luxuriant	Pink to red with bile precipitate
	Proteus vulgaris (13315)	Luxuriant	Colourless
	Salmonella enteritidis (13076)	Luxuriant	Colourless
	Salmonella typhi (6539)	Luxuriant	Colourless
	Salmonella paratyphi A	Luxuriant	Colourless
	Salmonella paratyphi B	Luxuriant	Colourless
	Salmonella Typhimurium (14028)	Luxuriant	Colourless
	Salmonella Abony (NCTC6017)	Luxuriant	Colourless
	Shigella flexneri (12022)	Fair to good	Colourless
	Enterococcus faecalis (29212)	Fair to good	Colourless to pink
	Staphylococcus aureus (25923)	Inhibited	--
	Staphylococcus aureus (6538)	Inhibited	--
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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. Although MacConkey media are selective primarily for gram – negative enteric bacilli, biochemical and, if indicated, serological testing using pure cultures are recommended for complete identification. Consult appropriate references for further information.				
	3. Due to the selective properties of MacConkey Agar CV, some strains of gram – negative enteric bacilli may be encountered that fail to grow or grow poorly on this medium. Some strains of gram – positive organisms may be encountered that are not inhibited or only partially inhibited on this medium ; some strains of enterococci may grow on MacConkey Agar CV after prolonged incubation.				
	4. Incubation of MacConkey Agar plates under increased CO ₂ has been reported to reduce the growth and recovery of a number of strains of gram – negative bacilli.				
	5. For optimal performance, plates prepared from MacConkey Agar CV should be incubated under aerobic conditions.				
Use :	For selective isolation and differentiation of coliform organisms and other enteric pathogens.				
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
B238	51.53 g/L	9.703L	7.1± 0.2	NIL	121°C /15 min.