

**BIOMARK Laboratories – INDIA**

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**TECHNICAL SHEET**

<b>B236</b>	<b>Mac Conkey Agar w/o CV, NaCl w/Sodium Taurocholate 0.5%</b>		
<b>Formula</b>			
<b>Ingredients :</b>		<b>gms/lit.</b>	
Peptone		20.00	
Lactose		10.00	
Sodium taurocholate		5.00	
Neutral red		0.04	
Agar		20.00	
Final pH (at 25°C) : 7.4± 0.2			
<b>Directions :</b>			
Suspend 55.0 grams of medium 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. Mix well and pour into sterile Petri plates. The surface of the medium should be dry when inoculated.			
<b>Principle:</b> Peptone is source of nitrogen and other nutrients. Lactose is a fermentable carbohydrate. When lactose is fermented, a local pH drop around the colony causes a colour change in the pH indicator (neutral red) Sodium taurocholate is selective agents that inhibit growth of gram –positive organisms. Lactose fermenting strains grow as red or pink 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 and transparent and typically do not alter appearance of the medium. Yersinia enterocolitica may appear as small, nonlactose fermenting colonies after incubation at room temperature.			
<b>QC Tests – (I) Dehydrated Medium</b>			
	Colour :	Pinkish beige	
	Appearance :	Homogeneous Free Flowing powder	
<b>(II) Rehydrated medium</b>			
	pH (post autoclaving/heating) :	7.4 ± 0.2	
	Colour (post autoclaving/heating) :	Orange red	
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
<b>(III) Q.C. Test Microbiological</b>			
Cultural characteristics observed after 18 – 24 hours at 35- 37°C.			
	MICROORGANISM (ATCC )	GROWTH	COLOUR OF COLONY
	Enterobacter aerogenes (13048)	Luxuriant	Pink to red
	Escherichia coli (25922)	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
	Shigella flexneri (12022)	Luxuriant	Colourless
	Enterococcus faecalis (29212)	Fair to good	Pale pink to red
	Staphylococcus aureus (25923)	Fair to good	Pale pink to red
<b>Precautions :</b>		1. For Laboratory Use.	
		2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.	

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<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. 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. Incubation of MacConkey Agar plates under increased CO <sub>2</sub> has been reported to reduce the growth and recovery of a number of strains of gram – negative bacilli.				
<b>Use :</b>	For the selection and recovery of the Enterobacteriaceae and related enteric gram-negative bacilli from clinical, food and water samples.				
<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>B236</b>	55g/L	9.09L	7.4± 0.2	NIL