

BIOMARK Laboratories – INDIA

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TECHNICAL SHEET

B244	MacConkey Broth w/Neutral Red			
Formula				
Ingredients :		gms/lit.		
Peptone		20.00		
Lactose		10.00		
Bile Salts		5.00		
Sodium Chloride		5.00		
Neutral red		0.075		
Final pH (at 25°C) : 7.4± 0.2				
Directions :				
Suspend 40.07 grams in 1000 ml distilled water. Heat if necessary, to dissolve the medium completely. Distribute into tubes with inverted Durhams tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubes before inoculation.				
Principle: Peptone provides necessary nitrogen source. Lactose serves as the fermentable carbohydrate source. Sodium chloride maintains the osmotic balance of the cells. The selective action of these media is attributed to the presence of bile salts, which are inhibitory to most species of gram-positive bacteria. Gram-negative bacteria usually grow well on these media and are differentiated by their ability to ferment lactose. The colour change of the medium shown by lactose-fermenters is due to production of acid from lactose and a subsequent colour change of the indicator dye when the pH of the media falls below 6.8. The medium turns pink in case of lactose fermenters and yellow in case of non-lactose-fermenters, due to neutral red. MacConkey Broth , which contains neutral red as an indicator is considered as a standard medium for the primary isolation as well as presumptive identification of coliform-aerogenes group of organisms in food and water.				
QC Tests – (I)Dehydrated Medium				
	Colour :	Pale yellow to pink		
	Appearance :	Homogeneous Free Flowing powder		
(II)Rehydrated medium				
	pH (post autoclaving/heating) :	7.4 ± 0.2		
	Colour (post autoclaving/heating) :	Red		
	Clarity (post autoclaving/heating) :	Clear		
(III) Q.C. Test Microbiological				
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours				
	MICROORGANISM (ATCC)	GROWTH	ACID	GAS
	Enterobacter aerogenes (13048)	Luxuriant	+	+
	Escherichia coli (25922)	Luxuriant	+	+
	Salmonella cholerasuis (12011)	Fair to good	--	--
	Klebsiella pneumoniae (13883)	Luxuriant	+	+
	Proteus mirabilis (25933)	Luxuriant	--	--
	Staphylococcus aureus (25923)	Inhibited	--	--
	Enterococcus faecalis (29212)	none-poor	+	--
Precautions :	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.			

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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.				
Use :	For selective enrichment and enumeration of coliforms.				
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
	B244	40.00g/L	12.5L	7.4± 0.2	NIL