

BIOMARK Laboratories – INDIA

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TECHNICAL SHEET

B603	MAC CONKEY AGAR W/1.35% AGAR, CV, NACL & 0.15% BILE SALTS		
Formula			
Ingredients :	gms/lit.		
Peptic digest of animal tissue	1.500		
Casein enzymic hydrolysate	1.500		
Pancreatic digest of gelatin	17.00		
Lactose	10.00		
Bile Salts	1.500		
Sodium chloride	5.000		
Crystal violet	0.001		
Neutral red	0.030		
Final pH (at 25°C) :	7.1± 0.2		
Directions :	Suspend 50.03 gms of medium in 1000 ml purified/distilled water. Heat to boiling with gentle swirling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well before pouring into sterile Petri plates. The surface of the medium should be dry when inoculated.		
Principle:	Peptic digest of animal tissue is sources of nitrogen and other nutrients. Lactose is a fermentable source of carbohydrate. The selective action of this medium is attributed to crystal violet and bile salts, which are inhibitory to most species of gram-positive bacteria. Essential nutrients, vitamins and nitrogenous factors are provided by a combination of Peptic digest of animal tissue, Casein enzymic hydrolysate and pancreatic digest of gelatin. Lactose is the fermentable source of carbohydrate. Sodium chloride maintains the osmotic balance in the medium. Neutral red is the pH indicator. Agar is a solidifying agent.		
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 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
	Escherichia coli (8739)	Luxuriant	Pink to red with bile precipitate
	Escherichia coli (NCTC9002)	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 (9150)	Luxuriant	Colourless

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	Salmonella paratyphi B (8759)	Luxuriant	Colourless		
	Salmonella Abony (NCTC6017)	Luxuriant	Colourless		
	Salmonella Typhimurium (14028)	Luxuriant	Colourless		
	Shigella flexneri (12022)	Fair to good	Colourless		
	Enterococcus faecalis (29212)	None - poor	Colourless to pale pink		
	Staphylococcus aureus (25923)	Inhibited	--		
	Staphylococcus epidermidis (12228)	Inhibited	--		
	Staphylococcus aureus (6538)	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.				
	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:	MacConkey Agar is used for selective isolation of Escherichia coli enteric bacteria in accordance with Indian Pharmacopoeia, 2010.				
Storage:	Dehydrated medium- below 30 ° C Prepared mediums– Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B603	50.03g/L	10.0L	7.1± 0.2	NIL	121 ⁰ C /15 min.

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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