

TECHNICAL SHEET

BB005	XLD - MacConkey Agar				
Formula: Cetrimide Agar		MacConkey Agar			
Ingredients:	gms/lit		gms/lit		
Yeast extract	3.00	Peptone	1.50		
L-Lysine	5.00	Tryptone	1.50		
Lactose	7.50	Gelatin peptone	17.00		
Sucrose	7.50	Lactose	10.00		
Xylose	3.50	Bile Salts	1.50		
Sodium chloride	5.00	Sodium chloride	5.00		
Sodium deoxycholate	2.50	Crystal violet	0.001		
Sodium thiosulphate	6.80	Neutral red	0.03		
Ferric ammonium citrate	0.80	Agar	15.00		
Phenol red	0.08				
Agar	15.00				
Final pH (at 25°C): :7.4 ± 0.2		7.1±0.2			
Directions:					
1.Label the ready to use plate (BB005). streak the test inoculum (50-100 CFU) aseptically on the plate.					
2.Refer Technical Data of XLD Agar (B361) & MacConkey agar w/0.15% Bile Salts, CV and NaCl (B238).					
Principle:					
Biplates has unique combination of two media. XLD Agar is both selective and differential medium used for enteric pathogens including Salmonella typhi from other Salmonella species. The medium contains yeast extract, which provides nitrogen and vitamins required for growth. Though the sugars xylose, lactose and sucrose provide sources of fermentable carbohydrates. Lysine is included to differentiate the Salmonella group from the non-pathogens. Degradation of xylose, lactose and sucrose to acid causes phenol red indicator to change its color to yellow. MacConkey Agar is a differential medium for the selection and recovery of the Enterobacteriaceae and related enteric gram-negative bacilli. This medium is prepared with crystal violet, NaCl and Bile salts. It is very selective and suppresses growth of a number of Gram-positive bacteria including staphylococci. Coliforms and Enterobacter give pink to red colonies on this medium and Escherichia coli gives pink to red colonies with bile precipitate.					
(I) QC Tests					
	pH:	XLD Agar: 7.4 ± 0.2 MacConkey Agar: 7.1+ 0.2			
	Color:	Red colored medium of XLD Agar and Red coloured medium with purplish tinge of MacConkey Agar.			
	Appearance:	Sterile XLD Agar and MacConkey Agar in 85mm disposable Biplates.			
(II) Sterility test		Passes release criteria			
(III) Q.C. Test Microbiological					
Cultural characteristics observed after incubation at 35-37°C for 18-48 hours.					
	MICROORGANISM (ATCC)	GROWTH ON MACCONKEY AGAR	COLOR ON MAC AGAR	GROWTH ON XLD AGAR	COLOR ON XLD AGAR

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Escherichia coli 25922	Luxuriant	Pink-red w/ bile precipitate	Fair	yellow
Staphylococcus aureus 25923	Inhibited	-	Inhibited	-
S. serotype enteritidis 13076	Luxuriant	Colorless	Good-luxuriant	Red w/black centres
S. serotype paratyphi A 9150	Luxuriant	Colorless	Good-luxuriant	red
Enterobacter aerogenes 13048	Luxuriant	Pink-red	Fair	yellow
Proteus vulgaris 13315	Luxuriant	Colorless	Good-luxuriant	yellow
Proteus mirabilis 25933	-	-	Good-luxuriant	yellow
S. serotype paratyphi B 8759	Luxuriant	Colorless	Good-luxuriant	Red w/black centres
Enterococcus faecalis 29212	None-poor	Colorless-pink	-	-
Shigella dysenteriae 13313	-	-	Good-luxuriant	red
Shigella flexneri 12022	Fair-good	Colorless	Good	red
Shigella sonnei 25931	-	-	Good-luxuriant	red
S. serotype typhi 6539	Luxuriant	Colorless	Good-luxuriant	Red w/black centres
S. serotype typhimurium 14028	-	-	Good-luxuriant	Red w/black centres

Refer disclaimer Overleaf

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Precautions :	1. In Vitro diagnostic use only. 2. Read the label before opening the container
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
Use:	Combination of XLD Agar & MacConkey Agar w/ 0.15% Bile Salts, CV and NaCl recommended for selective isolation and enumeration of Salmonella species as well as differentiation of enteric pathogens.
Storage:	Store between 2-8°C. Use before expiry date on the label.
Packing:	20/50 disposable plates.

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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