

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B683	PHENYLALANINE AGAR					
Formula						
Ingredients :		gms/lit.				
Yeast extract		3.00				
Sodium chloride		5.00				
DL-Phenylalanine		2.00				
Disodium phosphate		1.00				
Agar		15.00				
Final pH (at 25°C) : 7.3 ± 0.2						
Directions :						
Suspend 26 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Allow the tubed medium to cool in a slanting position.						
Principle :						
Yeast extract in the medium supports the growth of the organisms. Sodium chloride maintains osmotic equilibrium. The phenylalanine serves as the substrate for enzymes, which are able to deaminate it to form phenylpyruvic acid. A recommended technique is to inoculate the slant surface with plenty of inoculum and incubate it for 12-16 hours. After incubation, add 0.2 ml of 10% ferric chloride solution so that the solution floods all over the growth. The addition of (0.2 ml 3-5 drops) of a 10% aqueous ferric chloride solution (or a 12% aqueous ferric chloride solution acidified with 2.5 ml of concentrated HCl per 100 ml of reagent) to the cultures following incubation results in the appearance of a light to deep green color (positive reaction) or no color change (negative reaction).						
QC Tests - (I) Dehydrated Medium						
Colour :		Cream to yellow				
Appearance :		Homogeneous Free Flowing powder				
(II) Rehydrated medium						
pH (post autoclaving/heating) :		7.3 ± 0.2				
Colour (post autoclaving/heating) :		Light amber				
Clarity (post autoclaving/heating) :		Slightly opalescent				
(III) Q.C. Test Microbiological						
Cultural characteristics observed after an incubation at 35-37°C for 12-16 hours						
MICROORGANISM (ATCC)		GROWTH	PHENYLALANINE DEAMINASE			
Enterobacter aerogenes (13048)		Luxuriant	-			
Escherichia coli (25922)		Luxuriant	-			
Proteus vulgaris (13315)		Luxuriant	+, Green colouration after addition of 10% ferric chloride			
Proteus mirabilis (25933)		Luxuriant	+, Green colouration after addition of 10% ferric chloride			
Providencia alcalifaciens (9886)		Luxuriant	+, Green colouration after addition of 10% ferric chloride			
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. Interpret the results within 5 minutes upon addition of reagent as the green colour fades quickly. 3. Certain species rapidly deaminate phenylalanine, allowing for a positive test result within 4 hours of incubation.				
Use :		Used for the differentiation of Proteus and Providencia group of organisms from other members of Enterobacteriaceae on the basis of their ability to form phenyl pyruvic acid from phenylalanine.				
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
B683	26g/l		19.230L	7.3 ± 0.2	NIL	121°C / 15 minutes