

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B599	MIU MEDIUM BASE				
Formula					
Ingredients :		gms/lit.			
Casein enzymic hydrolysate		10.00			
Dextrose		1.00			
Sodium chloride		5.00			
Phenol red		0.01			
Agar		2.00			
Final pH (at 25°C) : 6.8 ± 0.2					
Directions :					
Suspend 18 grams in 950 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in 95 ml amounts into flasks and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to about 50-55°C and add aseptically 5 ml sterile 40% Urea solution (BF048) per 95 ml basal medium. Mix well and dispense into sterile test tubes. Allow to cool in an upright position.					
Principle :					
Casein Enzymic Hydrolysate provides amino acids and other nitrogenous substance. Dextrose is the fermentable carbohydrate. Sodium chloride maintains osmotic equilibrium. Phenol red is the pH indicator. When urea is utilized, ammonia is formed during incubation which makes the medium alkaline showing a pink - red colour by the change in phenol red indicator. Indole is produced from tryptophan present in casein enzymic hydrolysate. The Indole produced combines with the aldehyde present in the Kovac's reagent to form a red complex. Motile organisms show either diffused growth or turbidity away from stab line.					
QC Tests – (I) Dehydrated Medium					
	Colour :	Light pink to light orange			
	Appearance :	Homogeneous Free Flowing powder			
(II) Rehydrated medium					
	pH (post autoclaving/heating) :	6.8 ± 0.2			
	Colour (post autoclaving/heating) :	Yellow orange			
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent			
(III) Q.C. Test Microbiological					
	Cultural characteristics observed with added 40% Urea solution (BF048) after an incubation at 35-37°C for 18 - 24 hours.				
	MICROORGANISM (ATCC)	GROWTH	MOTILITY	INDOLE	UREASE
	Escherichia coli (25922)	Luxuriant	+	+	-
	Klebsiella pneumoniae (13883)	Luxuriant	-	-	+
	Proteus vulgaris (13315)	Luxuriant	+	-	+
	Proteus mirabilis (25933)	Luxuriant	+	-	+
	Key : Urease + = positive reaction, pink - red colour - = negative reaction, yellow colour				
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.				
Use :	For detection of motility, urease and indole production.				
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
B599	18g/l	27.777L	6.8 ± 0.2	40% Urea solution (BF048)	121°C / 15 minutes