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 substances. 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.

Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization

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	+,growth away from stabline causing turbidity	+,red ring at the interface of the medium	negative reaction, no change	
Klebsiella pneumoniae (13883)	Luxuriant	-,growth along the stabline , surrounding medium remains clear	-,no colour development / cloudy ring	weakly positive	
Proteus vulgaris (13315)	Luxuriant	+,growth away from stabline causing turbidity	+,red ring at the interface of the medium	positive reaction, cerise colour	
Proteus mirabilis (25933)	Luxuriant	+,growth away from stabline causing turbidity	-,no colour development / cloudy ring	positive reaction, cerise colour	
Salmonella typhimurium (14028)	Luxuriant	+,growth away from stabline causing turbidity	-,no colour development / cloudy ring	negative reaction, no change	

Refer disclaimer Overleaf

Rev: December 2020

B599	18g/l	27.777L	6.8 ± 0.2	40% Urea solution (BF048)	121^0C / 15 minutes

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

Rev: December 2020