BIOMARK Laboratories-INDIA

www.biomarklabs.com

TECHNICAL SHEET

B496	**UREA BROTH BASE (DIAGNOSTIC STUARTS UREA BROTH BASE)**
Formula	
Ingredients :	**gms/lit.**
Monopotassium phosphate	9.10
Dipotassium phosphate	9.50
Yeast extract	0.10
Phenol red	0.01
Final pH (at 25°C) :	6.8 ± 0.2

Directions :

Suspend 18.71 grams in 950 ml distilled water. Heat if necessary, to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 55°C. Aseptically add 50 ml of sterile 40% Urea solution (BF048). Mix well and distribute in 10 ml amounts into sterile tubes.

Principle :

Yeast extract provides vitamins and cofactors required for growth and as a source of nitrogen and carbon. Potassium phosphate, Monobasic and Potassium Phosphate, Dibasic provide buffering capability. Urea provides a source of nitrogen for those organisms producing urease. This is indicated by a colour change of the pH indicator, Phenol red, from yellow (pH 6.8) to red to pink – red (pH 8.1).

QC Tests – (I)Dehydrated Medium	
Colour :	Light yellow to light pink
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
(III)Q.C. Test Microbiological	

Cultural characteristics observed on addition of sterile 40% Urea solution (BF048) after an incubation at 35-37°C for 18-24 hours.

MICROORGANISM (ATCC)	GROWTH	UREASE
Enterobacter aerogenes (13048)	Luxuriant	Negative reaction, no change
Escherichia coli (25922)	Luxuriant	Negative reaction, no change
Escherichia coli (8739)	Luxuriant	Negative reaction, no change
Escherichia coli (NCTC 9002)	Luxuriant	Negative reaction, no change
Klebsiella pneumoniae (13883)	Luxuriant	Positive reaction, cerise colour
Klebsiella pneumoniae (10031)	Luxuriant	Positive reaction, cerise colour
Proteus vulgaris (13315)	Luxuriant	Positive reaction, cerise colour
Proteus mirabilis (25933)	Luxuriant	Positive reaction, cerise colour
Salmonella typhimurium (14028)	Luxuriant	Negative reaction, no change

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 the identification of bacteria on the basis of urea utilization, specifically for the differentiation of Proteus species from Salmonella and Shigella species.
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
B496	18.71 g/l	26.723 L	6.8 ± 0.2	40% Urea solution (BF048)	121°C for 15 minutes.