BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B693	**MODIFIED AEA SPORULATION MEDIUM BASE**

Formula

Ingredients :	**gms/lit.**
Biopeptone	10.00
Yeast extract	10.00
Disodium phosphate	4.36
Monopotassium phosphate	0.25
Ammonium acetate	1.50
Magnesium sulphate $7H_2O$	0.20

Final pH (at 25°C) : 7.8 ± 0.2

Directions :

Suspend 26.31 grams in 1000 ml distilled water. Heat if necessary, to dissolve the medium completely Dispense the medium in 15 ml amounts in screw capped tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and add 0.6 ml of filter sterilized 10% raffinose and 0.2 ml each of sterile 0.66 M sodium carbonate and 0.32% cobalt chloride dropwise to each 15 ml base medium in the tubes. Just before using, steam the medium for 10 minutes and after cooling, add 0.2 ml of filter sterilized (freshly prepared) 1.5% sodium ascorbate to each tube of the medium.

Principle :

Biopeptone and yeast extract serve as essential sources of nutrients required by bacterial metabolism. Disodium phosphate buffers the medium well. Ammonium acetate, cobalt chloride, sodium carbonate and magnesium sulphate serve as sources of ions required for sporulation. Raffinose is the fermentable carbohydrate. C. perfringens ferments raffinose to produce acid.

QC Tests – (I)Dehydrated Medium	
Colour :	Cream to yellow
Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium	
pH (post autoclaving/heating) :	7.8 ± 0.2
Colour (post autoclaving/heating) :	Yellow
Clarity (post autoclaving/heating) :	Clear to slightly opalescent
(III)Q.C. Test Microbiological	

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours with added sterile 10% raffinose, sodium carbonate and cobalt chloride solution and sodium ascorbate solution

MICROORGANISM (ATCC)	GROWTH	RAFFINOSE FERMENTATION	SPORULATION (OBSERVED BY EXAMINING STAINED SLIDES)
Clostridium perfringens (12924)	Good - luxuriant	+	+
Clostridium sporogenes (11437)	Good - luxuriant	-	+

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 early sporulation of Clostridium perfringens from foods.
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
B693	26.31 g/l	19.004L	7.8 ± 0.2	10% raffinose ,0.66M sodium carbonate , 0.32% cobalt chloride and 1.5% sodium ascorbate	121^0C / 15 minutes