

TECHNICAL SHEET

B484	DECARBOXYLASE TEST MEDIUM BASE (FALKOW)		
Formula			
Ingredients:		gms/lit.	
Peptic digest of animal tissue		5.00	
Yeast extract		3.00	
Dextrose		1.00	
Bromocresol purple		0.02	
Final pH (at 25°C): 6.8 ± 0.2			
Directions:			
Suspend 9.02 grams in 1000 ml distilled water. Heat, if necessary to dissolve the medium completely. Divide into four equal parts. One part is tubed without addition of any amino acid. To the remaining three parts, add separately 3 amino acids, L-lysine hydrochloride, L-arginine hydrochloride and L-ornithine hydrochloride to a final concentration of 0.5%. Dispense in 3-4 ml quantities in screw capped tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. To avoid false alkalization at the surface of medium it is recommended to add liquid paraffin to a height of about 5mm before sterilization.			
Principle:			
Dextrose is fermented by the enteric bacteria resulting in acidic pH. Bacteria which produce lysine or ornithine or arginine decarboxylase will produce alkaline products and increase the pH. The resulting reaction after 24-96 hours will indicate an alkaline reaction seen as purple colour for decarboxylase producing bacteria and an acid pH (yellow) by the bacteria not producing decarboxylase			
QC Tests – (I) Dehydrated Medium			
Colour:		Light yellow to greenish yellow	
Appearance:		Homogeneous Free Flowing powder	
(II) Rehydrated medium			
pH (post autoclaving/heating):		6.8 ± 0.2	
Colour (post autoclaving/heating):		Purple	
Clarity (post autoclaving/heating):		Clear solution without any precipitate in tubes	
(III) Q.C. Test Microbiological			
Cultural characteristics observed after incubation at 35-37°C for upto 4 days with addition of appropriate amino acids and overlaying with sterile mineral oil.			
MICROORGANISM (ATCC)	Arginine decarboxylation	Ornithine decarboxylation	Lysine decarboxylation
Citrobacter freundii(8090)	variable reaction	variable reaction	negative reaction, yellow colour
Enterobacter aerogenes(13048)	negative reaction, yellow colour	positive reaction, purple colour	positive reaction, purple colour
Escherichia coli (25922)	variable reaction	variable reaction	positive reaction, purple colour
Klebsiella pneumoniae (13383)	negative reaction, yellow colour	negative reaction, yellow colour	positive reaction, purple colour
Proteus mirabilis (25933)	negative reaction, yellow colour	positive reaction, purple colour	negative reaction, yellow colour
Proteus vulgaris (13315)	negative reaction, yellow colour	negative reaction, yellow colour	negative reaction, yellow colour
Salmonella Paratyphi A (9150)	Delayed positive reaction, purple colour	positive reaction, purple colour	negative reaction, yellow colour
Salmonella Typhi (6539)	delayed positive reaction / negative reaction	negative reaction, yellow colour	positive reaction, purple colour
Serratia marcescens (8100)	negative reaction, yellow colour	negative reaction, yellow colour	positive reaction, purple colour
Shigella dysenteriae (13313)	negative reaction/ delayed positive reaction	negative reaction, yellow colour	negative reaction, yellow colour
Shigella flexneri (12022)	negative reaction/ delayed positive reaction	negative reaction, yellow colour	negative reaction, yellow colour
Shigella sonnei (259331)	variable reaction	positive reaction, purple 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:	It is used for testing decarboxylase activity.		

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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
B484	9.02 g/l	55.43 L	6.8 ± 0.2	L-lysine hydrochloride, L-arginine hydrochloride and L-ornithine hydrochloride	121°C/ 15 minutes

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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