

TECHNICAL SHEET

B1474	ORNITHINE DECARBOXYLASE BROTH	
Formula		
Ingredients :	gms/lit.	
L-Ornithine monohydrochloride	5.00	
Yeast extract	3.00	
Glucose	1.00	
Bromo cresol purple	0.015	
Final pH (at 25°C) : 6.8 ± 0.2		
Directions :		
Suspend 9.01 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in test tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. After inoculation overlay the tubes with 2-3 ml mineral oil.		
Principle :		
Yeast extract in the medium provides nitrogen and other nutrients necessary to support bacterial growth. The amino acid ornithine is added to detect the production of ornithine decarboxylase. Glucose is the fermentable carbohydrate, which during the initial stages of incubation, is fermented by the organisms with acid production, which results in colour change of the pH indicator (BCP) to yellow. The acidic condition also stimulates decarboxylase activity. If the organism produces decarboxylase, ornithine in the medium is degraded, yielding a corresponding amine. Decarboxylation of ornithine yields putrescine. The production of this amine elevates the pH of the medium towards alkalinity, changing the color of the indicator from yellow to purple or violet. If the organism does not produce the appropriate enzyme, the medium remains acidic or yellow in colour.		
QC Tests – (I) Dehydrated Medium		
Colour :	Light yellow to light green	
Appearance :	Homogeneous Free Flowing powder	
(II) Rehydrated medium		
pH (post autoclaving/heating) :	6.8 ± 0.2	
Colour (post autoclaving/heating) :	Dark purple	
Clarity (post autoclaving/heating) :	clear solution without any precipitae	
(III) Q.C. Test Microbiological		
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours. Inoculated tubes are over layed with mineral oil.		
MICROORGANISM (ATCC)	ORNITHINE DECARBOXYLATION	
Escherichia coli (25922)	variable reaction	
Enterobacter aerogenes (13048)	positive reaction, purple colour	
Klebsiella pneumonia (13383)	negative reaction, yellow colour	
Proteus mirabilis(25933)	negative reaction, yellow colour	
Proteus vulgaris(13315)	positive reaction, purple colour	
Salmonella Paratyphi A(1950)	positive reaction, purple colour	
Salmonella Typhi(6539)	negative reaction, yellow colour	
Shigella flexneri(12022)	negative reaction, yellow colour	
Shigella sonnei(25931)	positive reaction, purple colour	
Yersinia enterocolitica (27729)	positive reaction, purple 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 recommended for detection of the ability of microorganisms to decarboxylate ornithine as per International Organization for Standardization (ISO), 1994, Draft ISO/DIS 10273.	

Refer disclaimer Overleaf

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Storage :	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
Packing:	500 gm. bottle				
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Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1474	9.01 g/l	55.49 L	6.8 ± 0.2	NIL	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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