

TECHNICAL SHEET

LM011	Moeller Decarboxylase Broth w/ Lysine Hydrochloride	
Formula		
Ingredients:	gms/lit.	
Peptic digest of animal tissue	5.00	
Meat Extract B#	5.00	
Dextrose	0.50	
Bromo cresol purple	0.01	
Cresol red	0.005	
Pyridoxal	0.005	
L-Lysine hydrochloride	10.00	
#- Equivalent to Beef extract		
Directions: Label the ready to use bottle (LM011) bottle. Inoculate the sample and incubate at specified temperature and time.		
Principle:		
<p>Many species of bacteria possess enzymes capable of decarboxylating specific amino acids in the test medium releasing alkaline-reacting amines and carbon dioxide as byproducts. Moeller Decarboxylase Broth with Lysine hydrochloride is used for differentiating bacteria on the basis of their ability to decarboxylate L-Lysine hydrochloride. This medium contains beef extract and peptic digest of animal tissue which provide nitrogenous nutrients for the growth of bacteria. Dextrose is the fermentable carbohydrate and pyridoxal is the co-factor for the decarboxylase enzyme. Bromo cresol purple and cresol red are the pH indicators in this medium. When the medium is inoculated with dextrose fermenting bacteria, the pH is lowered due to acid production which changes the color of the indicator from purple to yellow.</p> <p>Acid produced stimulates decarboxylase enzyme. Arginine is first hydrolyzed to ornithine which is then decarboxylated to form putrescine. Formation of the amine putrescine increases the pH of the medium, changing the color of the indicator from yellow to purple. If the organisms do not produce the appropriate enzyme, the medium remains acidic, yellow in color. Each isolate to be tested should also be inoculated into the basal medium tube lacking the amino acid. After incubation, a decarboxylase test may show two layers of different colors, yellow and purple. Shake the tube gently before interpreting the results.</p>		
(I) QC Tests		
Color:	Sterile clear Moeller Decarboxylase Broth w/Lysine HCl in glass bottle.	
Appearance:	Purple coloured clear solution	
(II) Sterility test		
Passes release criteria		
(III) Q.C. Test Microbiological		
Cultural characteristics observed on addition of a layer of sterile mineral oil and after incubation at 35-37°C for 48-72 hours.		
MICROORGANISM (ATCC)	LYSINE DECARBOXYLATION	
Escherichia coli 25922	Variable	
Klebsiella pneumoniae 13883	Positive reaction, purple color	
Proteus vulgaris 13315	Negative reaction, yellow or no color change	
Citrobacter freundii 8090	Variable	
Enterobacter aerogenes 13048	Positive reaction, purple color	

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Precautions :	1. In Vitro diagnostic use only. 2. Read the label before opening the container
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 differentiation of bacteria on the basis of their ability to decarboxylate L- Lysine hydrochloride.
Storage:	Store between 2-8 °C. Use before expiry date on the label.
Packing:	5ml in 25/50 Glass bottle.

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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