

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B465	PANTOTHENATE ASSAY MEDIUM, AOAC
Formula	
Ingredients :	gms/lit.
Caseinacidhydrolysate	10.00
Dextrose	40.00
Sodium Acetate	20.00
L-Cystine	0.40
L- Tryptophan	0.10
Adenine Sulphate	0.02
Guanine Hydrochloride	0.02
Uracil	0.02
Thiamine Hydrochloride	0.0002
Riboflavin	0.0004
p-Aminobenzoic Avid	0.0002
Biotin	0.0000008
Monopotassium phosphate	1.00
Sodium Chloride	0.02
Ferrous Sulphate	0.02
Manganese Sulphate	0.02
Dipotassium Phosphate	1.00
Magnesium sulphate	0.40
Nicotinic acid	0.001
Pyridoxine hydrochloride	0.0008
Sorbitan monooleate complex	0.10
Final pH (at 25°C) :	6.7± 0.2
Directions :	
Suspend 7.3 grams in 100 ml distilled water. Boil to dissolve the medium completely. Mix well distribute the slight precipitate evenly. Dispense in 5 ml amounts to each assay tube in increasing amounts of the standard or the unknown. Adjust the volume of each tube to 10ml with distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool the medium immediately. Generally satisfactory results are obtained with Pantothenic acid at levels of 0.0, 0.005, 0.01, 0.015, 0.02, and 0.025 microgram per assay tube (10 ml.)	
Principle :	
Pantothenate assay medium contains all the necessary nutrients for the growth of the test organism except pantothenate. The medium contains essential nutrients like amino acid, carbohydrates, purine, pyrimidines, salts and vitamins. Pantothenic acid is essential for the growth of Lactobacillus plantarum ATCC 8014. L. plantarum ATCC 8014 is an auxotrophic strain requiring pantothenate. The growth of L. plantarum ATCC 8014 increases with the increase in concentration of pantothenate. Therefore, from the standard linear curve, concentration of pantothenate in the unknown sample can be determined. Pantothenate assay medium is prepared according to the formulations of the U.S. Pharmacopoeia for the microbiological assay of pantothenate acids or its salts using L. plantarum ATCC 8014 as the test organism. Pantothenate assay medium. AOAC is prepared as per AOAC for the microbiological assay of pantothenate.	

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QC Tests – (I) Dehydrated Medium					
Colour :		Cream to light yellow			
Appearance :		Homogeneous Free Flowing powder			
(II) Rehydrated medium					
PH (post autoclaving/heating) :		6.7 ± 0.2			
Colour (post autoclaving/heating) :		Light yellow			
Clarity (post autoclaving/heating) :		Clear solution which may have a slight precipitate			
(III) Q.C. Test Microbiological					
The medium supports the growth of Lactobacillus plantarum ATCC 8014 when supplemented with calcium pantothenate. Growth increases gradually with increasing concentration of pantothenate.					
MICROORGANISM (ATCC)		GROWTH			
Lactobacillus plantarum ATCC 8014		Good			
Precautions :					
1. For Laboratory Use.					
2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.					
3. May be irritating to eyes, respiratory system and skin . (US) Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. Target organ(s) : Kidney, Bladder.					
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 microbiological assay of Pantothenate acid or its salts using Lactobacillus plantarum ATCC 8014 as the test organisms.					
Storage :					
Dehydrated medium and prepared medium – Below 8°C. Use freshly prepared medium.					
Packing :					
500 gm. bottle					
Product profile:					
	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B465	73.1g/l	6.839L	6.7 ± 0.2	Nil	121°C / 10 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 BIOMARK LABORATORIES publications.

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