

TECHNICAL SHEET

BS032		PANTOTHENATE ASSAY MEDIUM	
Formula			
Ingredients :		gms/lit.	
Casein acid hydrolysate		10.00	
Dextrose		40.00	
Sodium Acetate		20.00	
L-Cystine		0.40	
DL-Tryptophan		0.20	
Adenine Sulphate		0.02	
Guanine Hydrochloride		0.02	
Uracil		0.02	
Thiamine Hydrochloride		0.0002	
Pyridoxine		0.0008	
Riboflavin		0.0004	
Niacin		0.001	
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	
Final pH (at 25°C) :		6.8 ± 0.2	
Directions :			
Suspend 7.31 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 and total volume 10 ml per tube is adjusted by addition of distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool the medium immediately. Generally satisfactory results are obtained with Calcium pantothenate at levels of 0, 0.025, 0.05, 0.075, 0.1, 0.125, 0.15 & 0.2 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.			

Refer disclaimer Overleaf

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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) :		6.8 ± 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						
Microbiological Assay of Pantothenate is carried out by using after an incubation at 35-37°C for 18-24 hours.						
MICROORGANISM (ATCC)		GROWTH				
Lactobacillus plantarum ATCC 8014		Good growth is obtained. Gradually, increase in growth with increasing concentration of pantothenate standard level of 0.0, 0.025, 0.075, 0.1, 0.125, 0.15 and 0.2 mcg per assay tube is recorded as equivalent increase in absorbance at 620 nm.				
Precautions :		<ol style="list-style-type: none"> 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 organism as per USP.				
Storage :		Dehydrated medium-Between 2-8°C Prepared medium – Use freshly prepared medium.				
Packing :		500 gm. bottle				
Product profile:		Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
BS032		73.1g/l	6.839L	6.8 ± 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. The information contained in this publication is based on our in-house studies and market performance and is to the best of our knowledge true and accurate. BIOMARK LABORATORIES reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.