

BS033	NIACIN ASSAY MEDIUM				
Formula					
Ingredients :		gms/lit.			
Casein acid hydrolysate vitamin free					12.00
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
Calcium pantothenate					0.0002
Pyridoxine hydrochloride					0.0004
Riboflavin					0.0004
p-Amino benzoic acid					0.0001
Biotin					0.00008
Dipotassium phosphate					1.00
Monopotassium phosphate					1.00
Magnesium sulphate					0.40
Sodium chloride					0.02
Ferrous sulphate					0.02
Manganese sulphate					0.02
Final pH (at 25°C) : 6.8 ± 0.2					
Directions :					
Suspend 7.51 gms. in 100ml distilled water. Boil to dissolve the medium completely. Mix well to distribute the slight precipitate evenly. For the assay, dispense 5 ml medium per assay tube (containing increasing amounts of standard or unknown) and make up the total volume to 10ml per tube with distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool immediately. Generally satisfactory results are obtained with Niacin or Niacinamide at levels of 0, 0.01, 0.02, 0.04, 0.06, 0.08, 0.1, 0.12 micrograms per assay tube (10ml).					
Principle :					
This medium is free from nicotinic acid and its analogs but containing all other nutrients and vitamins essential for the cultivation of L-plantarum ATCC 8014. The addition of nicotinic acid or its analogs in specified increasing concentrations gives a growth response that can be measured turbidometrically or titrimetrically.					
QC Tests – (I)Dehydrated Medium					
Colour :	Light yellow				
Appearance :	Homogeneous Free Flowing powder				
(II)Rehydrated medium					
pH (post autoclaving/heating) :	6.8 ± 0.2				
Colour (post autoclaving/heating) :	Light amber				
Clarity (post autoclaving/heating) :	Clear				
(III)Q.C. Test Microbiological					
Microbiological assay of Niacin is carried out using Lactobacillus plantarum (8014). After 16-18 hrs. incubation at 35-37°C good growth is obtained. Gradual increase in growth with increasing concentrations of Standard Niacin – 0.0, 0.025, 0.075, 0.1, 0.125, 0.15, 0.2 and 0.25 mcg per assay tube is recorded as equivalent increase in absorbance at 620 nm.					
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 :	For the microbiological assay of Niacin (Nicotinic acid) or Niacinamide using Lactobacillus plantarum (8014) as the test organism.				
Storage :	Dehydrated medium and prepared medium– Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (100g)	pH (25°C)	Supplement	Sterilization
BS033	75.1g/l	1.33 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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