

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

B1566	ALEKSANDROW AGAR		
Formula			
Ingredients :		gms/lit.	
Magnesium sulphate	0.50		
Calcium carbonate		0.10	
Potassium alumino silicate		2.00	
Dextrose (Glucose)		5.00	
Ferric chloride		0.005	
Calcium phosphate		2.00	
Agar		20.00	
Final pH (at 25°C): 7.2± 0.2			
Directions:			
Suspend 29.60 grams in 1000ml of purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.			
Principle:			
Potassium-solubilizing bacteria convert insoluble potassium in the soil into a form that plants can access. A wide range of bacteria namely Pseudomonas, Burkholderia, Acidithiobacillus ferrooxidans, Bacillus mucilaginosus, Bacillus edaphicus, B.circulans and Paenibacillus sp. has been reported to release potassium in accessible form from potassium-bearing minerals in soils. Potassium-solubilizing bacteria have been reported to exert beneficial effects on growth of cotton, pepper and cucumber, sorghum, wheat and Sudan grass. Therefore potassium solubilizing bacteria are extensively used as biofertilizers. Salts present in the medium support the growth of potassium solubilizing bacteria by providing the essential nutrients. The source of potassium salts is potassium alumino silicates. Potassium solubilizing bacteria will grow on this medium and form a clear zone around the colony, formed due to potassium solubilization in the vicinity of the colony.			
Type of specimen : Soil sample.			
Specimen Collection and Handling:			
For soil samples, follow appropriate techniques for sample collection as per established and current guidelines of soil microbiology and local standards.			
After use, contaminated materials must be sterilized by autoclaving before discarding.			
QC Tests – (I) Dehydrated Medium			
Colour:	Cream to yellow		
Appearance:	Homogeneous Free Flowing powder		
(II) Rehydrated medium			
pH (post autoclaving/heating):	7.2 ± 0.2		
Colour (post autoclaving/heating):	Cream to light yellow		
Clarity (post autoclaving/heating):	Opaque gel with white precipitate		
(III) Q.C. Test Microbiological			
Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.			
MICROORGANISM (ATCC)	GROWTH	POTASSIUM SOLUBILIZATION	
Potassium solubilizing isolate	Good-Luxuriant	Positive reaction, clear zone surrounding the colony	
Warning & Precautions :	1. For In vitro diagnostic Use. By professionals only.		
	2. Read the label carefully before opening the container. Wear PPE wares. Follow established good microbiology laboratory practices while handling specimens and cultures and take standard precautions for handling clinical specimens.		
	3. For safety guidelines refer individual safety data sheet.		

Refer disclaimer Overleaf

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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:	Recommended for isolation and detection of Potassium solubilizing bacteria from soil samples.				
Storage:	Dehydrated medium-below 30°C Prepared medium- Between 20 to 30°C.				
Disposal:	Ensure safe disposal by autoclaving/or incineration of used or usable preparation of this product. Follow established laboratory procedures while disposing all infectious material and those coming in contact must be decontaminated and disposed off with existing laboratory technics.				
Packing:	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1566	29.60 g/l	16.891 L	7.2 ± 0.2	Nil	121 ⁰ C /15 min.

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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