

TECHNICAL SHEET

B727	MIDDLEBROOK 7H10 AGAR BASE, SPECIAL		
Formula			
Ingredients :		gms/lit.	
Amonium sulphate		0.50	
L-Glutamic acid		0.50	
Monopotassium Phosphate		1.50	
Disodium phosphate		1.50	
Sodium citrate		0.40	
Ferric ammonium citrate		0.04	
Magnesium sulphate		0.05	
Pyridoxine hydrochloride		0.001	
Biotin		0.0005	
Malachite green		0.001	
Agar		15.00	
Final pH (at 25°C) : 6.6 ± 0.2			
Directions :			
Suspend 19.49 gms in 900 ml distilled water containing 5ml. glycerol. Boil to dissolve the medium completely. Distribute in 180ml. amounts in flasks and sterilize at 15 lbs pressure (121°C) for 10 minutes. To each cooled sterile 180ml. medium aseptically add 20ml. Middlebrook OADC Growth Supplement. Mix well and pour into sterile screw capped tubes or containers.			
NOTE: Keep prepared medium in the dark before and after inoculation.			
Principle :			
This medium consist of many inorganic salts which help for the growth of Mycobacteria. Citric acid formed from sodium citrate helps in retaining inorganic cations in solution. Glycerol supplies carbon and energy. Supplement OADC contains oleic acid, bovine albumin, sodium chloride, dextrose and catalase. Oleic acid and other long chain fatty acids are essential for metabolism of Mycobacteria. Dextrose is an energy source. Catalase neutralizes toxic peroxides while albumin protects tubercle bacilli from toxic agents. Malachite green partially inhibits other bacteria.			
QC Tests – (I)Dehydrated Medium			
Colour :		Cream to light green	
Appearance :		Homogeneous Free Flowing powder	
(II)Rehydrated medium			
pH (post autoclaving/heating) :		6.6 ± 0.2	
Colour (post autoclaving/heating) :		Very light amber	
Clarity (post autoclaving/heating) :		Slightly opalescent	
(III) Q.C. Test Microbiological			
Cultural characteristics observed after 2-4 weeks at 35-37°C.			
MICROORGANISM (ATCC)		GROWTH	
Mycobacterium tuberculosis H37 RV (25618)		Luxuriant	
Mycobacterium smegmatis (14468)		Luxuriant	
Mycobacterium fortuitum (6841)		Luxuriant	
Precautions :		1. For Laboratory Use.	
		2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.	

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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.				
	2. Negative culture results do not rule out active infection by mycobacteria. Some factors that are responsible for unsuccessful cultures are ; <ul style="list-style-type: none"> • The specimen was not representative of the infectious material, i.e. saliva instead of sputum. • The mycobacteria were destroyed during digestion and decontamination of the specimen. • Gross contamination interfered with the growth of the mycobacteria. • Proper aerobic conditions and increased CO₂ tension were not provided during incubation. 				
Use :	For cultivation and sensitivity testing of Mycobacterium tuberculosis.				
Storage :	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B727	19.49g/l	25.654L	6.6 ± 0.2	Middlebrook OADC Growth Supplement	121°C / 10 minutes