

TECHNICAL SHEET

B176	DUBOS BROTH BASE				
Formula					
Ingredients :		gms/lit.			
Casein enzymic hydrolysate		0.50			
L-Asparagine		2.00			
Polysorbate 80		0.20			
Monopotassium phosphate		1.00			
Disodium phosphate		2.50			
Ferric ammonium citrate		0.05			
Magnesium sulphate		0.01			
Calcium chloride		0.0005			
Zinc sulphate		0.0001			
Copper sulphate		0.0001			
Final pH (at 25°C) : 6.6 ± 0.2					
Directions :					
Suspend 1.3 gms.in 180 ml. distilled water containing 10 ml glycerol. Boil if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 20 ml sterile bovine albumin V or sterile serum to each 180 ml of broth base.					
Principle :					
Dubos Broth Base contain casein enzymic hydrolysate and L-asparagine as source of nutrients, inorganic salts provide ions required for the metabolism. Polysorbate 80 is an oleic acid ester, which supplies essential fatty acids for the replication of Mycobacteria and the media has strong buffering system. Dubos broth base enriched with serum will generally initiate growth from smaller inocula and yield more luxuriant growth than the basal medium enriched with albumin V. Growth is generally more granular with the serum enrichment, while it is more diffused with albumin enrichment. Maximum care should be taken while handling mycobacterial cultures as they are highly infectious.					
QC Tests – (I)Dehydrated Medium					
Colour :		Light yellow to beige			
Appearance :		Homogeneous Free Flowing powder			
(II)Rehydrated medium					
pH (post autoclaving/heating) :		6.6 ± 0.2			
Colour (post autoclaving/heating) :		Light yellow			
Clarity (post autoclaving/heating) :		Clear			
(III)Q.C. Test Microbiological					
Cultural characteristics observed with added sterile bovine albumin V or sterile serum after an incubation at 35-37°C for 2-6 weeks with 5-10% CO ₂ ..					
MICROORGANISM (ATCC)		GROWTH			
Mycobacterium tuberculosis H37Rv(25618)		Good - luxuriant			
Mycobacterium kansasii (12478)		Good - luxuriant			
Mycobacterium gordonae (14470)		Good - luxuriant			
Mycobacterium avium (25291)		Good - luxuriant			
Mycobacterium smegmatis (14468)		Good - luxuriant			
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.					
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. 					
3. Mycobacteria are strict aerobes and growth is stimulated by increased levels of CO ₂ . Screw caps on tubes or bottles should remain loose for a free exchange of CO ₂ .					
Use :					
For preparation of liquid medium for rapid cultivation of pure cultures of Mycobacterium tuberculosis and related microorganisms.					
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
B176	7.22g/l	69.25 L	6.6 ± 0.2	sterile bovine albumin V or sterile serum	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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