

TECHNICAL SHEET

B492	DEXTROSE PROTEOSE PEPTONE AGAR BASE				
Formula					
Ingredients :		gms/lit.			
Proteose peptone	20.00				
Dextrose	2.00				
Sodium chloride	5.00				
Agar	15.00				
Final pH (at 25°C) : 7.4 ± 0.2					
Directions :					
Suspend 42 gms. in 1000 ml. distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 50°C. Aseptically add sterile 5% v/v defibrinated blood and sterile 1% Potassium Tellurite Solution (BF010). Mix well before pouring into sterile petri plates.					
Principle :					
Corynebacterium diphtheriae is the causative agent of diphtheria, an acute communicable disease manifested by both local infection of the upper respiratory tract and the systemic effects of a toxin, which are most notable in the heart and peripheral nerves. C. diphtheriae is most often isolated from the nasopharynx or skin lesions of patients with diphtheria. Dextrose Proteose Peptone Agar is used for the isolation of C.diphtheriae, in combination with blood and tellurite. A selective serum medium containing tellurite was described by Conradi and Troch for isolating C.diphtheriae. This medium later on underwent modification by different authors in which they used heated Blood Agar Tellurite or Blood Agar Tellurite Arsenate Medium. McGuigan and Frobisher had used a Cystine Tellurite Blood Agar for C.diphtheriae. Without the inclusion of blood and tellurite, this medium is recommended as a general laboratory medium. With added tellurite and blood, this medium permits the isolation of C.diphtheriae. Proteose peptone serves as source of carbon, nitrogen, vitamins and minerals. Dextrose serves as an energy source. Sodium chloride helps to maintain the osmotic equilibrium. Potassium tellurite serves as a selective agent.					
QC Tests - (I)Dehydrated Medium					
Colour :		Cream to yellow			
Appearance :		Homogeneous Free Flowing powder			
(II)Rehydrated medium					
pH (post autoclaving/heating) :		7.4 ± 0.2			
Colour (post autoclaving/heating) :		Reddish brown			
Clarity (post autoclaving/heating) :		Opaque			
(III)Q.C. Test Microbiological					
Cultural characteristics observed with added 5%v/v sterile defibrinated blood and Potassium tellurite 1% Selective Supplement (1 ml per vial) (BF010), after an incubation at 35-37°C for 24-48 hours.					
MICROORGANISM (ATCC)		GROWTH	COLOUR OF COLONY		
Corynebacterium diphtheriae (11913)		Good - luxuriant	Black		
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 :		With added blood and tellurite it is used for isolation of Corynebacterium diphtheriae from clinical and non-clinical samples			
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
B492		42g/l	11.90L	7.4 ± 0.2	sterile 5% v/v defibrinated blood and sterile 1% Tellurite Solution
					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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