

<b>B479</b>	<b>CYSTINE TELLURITE AGAR BASE</b>				
<b>Formula</b>					
<b>Ingredient:</b>		<b>gms/lit.</b>			
Beef heart, infusion from		500.00			
Tryptose		10.00			
Sodium chloride		5.00			
L-Cystine		0.05			
Agar		15.00			
Final pH (at 25°C): 7.4 ± 0.2					
<b>Directions:</b>					
Suspend 40 gms. in 900 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 5% v/v sterile defibrinated sheep blood and 5% v/v of 1.0% Potassium Tellurite. Mix well and pour into sterile petri plates.					
<b>Principle:</b>					
Medium constituents beef heart infusion and tryptose supply the necessary nutrients for the growth of Corynebacterium diphtheriae. Sheep blood also provide the necessary growth factors for Corynebacterium diphtheriae types. Potassium tellurite inhibits most upper respiratory tract normal flora other than Corynebacterium species and also inhibits the growth of majority of gram – negative bacteria. This medium is differential on th basis of the ability of Corynebacterium species to reduce tellurite where diphtheroides found in upper respiratory tract cannot reduce the tellurite. L-cystine is the source of amino acid which enhances H <sub>2</sub> S production. Further biochemical tests are necessary to distinguish between Corynebacterium diphtheriae and Corynebacterium ulcerans due to similar reactions on this medium.					
<b>QC Tests – (I) Dehydrated Medium</b>					
Colour:		Light yellow			
Appearance:		Homogeneous Free Flowing powder			
<b>(II) Rehydrated medium</b>					
pH (post autoclaving/heating) :		7.4 ± 0.2			
Colour (post autoclaving/heating):		a) Basal medium : amber b) (With addition of blood and tellurite) : Brownish red			
Clarity (post autoclaving/heating):		Opalescent			
<b>(III) Q.C. Test Microbiological</b>					
Cultural characteristics observed after 18 –24 hrs. at 35-37°C.					
MICROORGANISM (ATCC)		GROWTH		COLOUR OF COLONY	
Corynebacterium diphtheriae type mitis		Good		Grey, with shining surface	
Enterococcus faecalis (29212)		None – poor		Minute, black colonies	
Escherichia coli (25922)		Inhibited		-	
Bacillus subtilis (6633)		Inhibited		-	
<b>Precautions :</b>					
1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.					
<b>Limitations :</b>					
1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.					
<b>Use:</b>					
For selective isolation and differentiation of Corynebacterium diphtheriae species.					
<b>Storage:</b>					
Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.					
<b>Packing:</b>					
500 gm bottle					
<b>Product profile:</b>		Reconstitution		Quantity on Preparation (500g)	
		pH (25°C)		Supplement	
		Sterilization			
<b>B479</b>		40g/l		12.5L	
		7.4 ± 0.2		5% v/v sterile defibrinated sheep blood and 5% v/v of 1.0% Potassium Tellurite	
				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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