

**TECHNICAL SHEET**

B722		SIMMONS AGAR BASE			
Formula					
Ingredients :			gms/lit.		
Magnesium sulphate		0.20			
Ammonium dihydrogen phosphate		0.20			
Sodium ammonium phosphate		0.80			
Sodium chloride		5.00			
Bromo thymol blue		0.08			
Agar		15.00			
Final pH (at 25°C) :		7.0 ± 0.2			
Directions :					
Suspend 21.3 gms in 900 ml. distilled water. Boil to dissolve the medium completely. Add 100 ml of 0.2% solution of sodium citrate to it. Mix well & distribute in tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.					
Principle :					
The ammonium dihydrogen phosphate is the sole source of nitrogen in Simmons Agar Base. Magnesium is a cofactor for a variety of metabolic reactions. Phosphate acts as a buffer. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent. Bromo thymol blue is the pH indicator. Organisms that can utilize ammonium dihydrogen phosphate as their sole sources of nitrogen and carbon will grow on this medium and produce a colour change from green (neutral) to blue (alkaline).					
QC Tests - (I)Dehydrated Medium					
	Colour :		Cream to Yellow		
	Appearance :		Homogeneous Free Flowing powder		
(II)Rehydrated medium					
	pH (post autoclaving/heating) :		7.0 ± 0.2		
	Colour (post autoclaving/heating) :		Green forest green		
	Clarity (post autoclaving/heating) :		Slightly opalescent		
(III)Q.C. Test Microbiological					
	Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours with added 0.2% solution of Sodium citrate.				
	MICROORGANISM (ATCC )	GROWTH	COLOUR OF MEDIUM	CITRATE UTILIZATION	
	Enterobacter aerogenes (13048)	Good - Luxuriant	Blue	+	
	Salmonella enteritidis (13076 )	Good - Luxuriant	Blue	+	
	Salmonella typhimurium (14028)	Good - Luxuriant	Blue	+	
	Salmonella typhi ( 6539 )	Fair to good	Green	-	
	Escherichia coli (25922)	Inhibited	Green	-	
	Shigella dysenteriae (13313 )	Inhibited	Green	-	
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. When inoculating a variety of biochemical, flame the inoculating loop or needle before streaking Simmons Citrate Agar or inoculate Simmons Citrate Agar first to avoid a false positive result.					
3. Some citrate positive organisms require 48 hours or longer incubation for a pH change to occur.					
Use :					
Recommended as a synthetic medium for differentiation between faecal coliforms and members of the aerogenes group on the basis of citrate utilization.					
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					
B722		21.3g/l	23.474L	7.0 ± 0.2	0.2% solution of sodium citrate
		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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