AS011	**Simmons Citrate Agar Slant**
Formula	
Ingredients:	**gms/lit.**
Magnesium sulphate	0.20
Ammonium dihydrogen phosphate	1.00
Dipotassium phosphate	1.00
Sodium citrate	2.00
Sodium chloride	5.00
Bromothymol blue	0.08
Agar	15.00
Final pH (at 25°C): 6.8 ± 0.2	
Directions:	
Streak the test inoculum aseptically into the slant and incubate at appropriate conditions.	
Principle:	
The ammonium dihydrogen phosphate is the sole source of nitrogen in Simmons Citrate Agar. Magnesium is a cofactor for a variety of metabolic reactions. Phosphate acts as a buffer. Sodium citrate is the sole source of carbon in this medium. 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 and sodium citrate as their sole sources of nitrogen and carbon will grow on this medium and produce a color change from green (neutral) to blue (alkaline).	
(I) QC Tests	
pH:	6.8 ± 0.2
Color:	Forest Green coloured slant.
Appearance:	Sterile Simmons Citrate Agar in disposable slants.
(II)Sterility test	Passes release criteria
(III)Q.C. Test Microbiological	

Cultural characteristics observed after incubation at 22-28°C for 48-72 hours.

MICROORGANISM (ATCC)	INOCULUM (CFU)	GROWTH	CITRATE UTILISATION
# Klebsiella aerogenes 13048 (00175*)	50-100	good-luxuriant	positive reaction, blue color
Escherichia coli 25922	>=10^4	inhibited	-
Salmonella Typhi 6539	50-100	fair-good	negative reaction, green color
Salmonella Typhimurium 14028 (00031*)	50-100	good-luxuriant	positive reaction, blue color
Shigella dysenteriae 13313	>=10^4	inhibited	-
Salmonella Choleraesuis12011	50-100	good-luxuriant	positive reaction,blue color
Salmonella Enteritidis 13076 (00030*)	50-100	good-luxuriant	positive reaction,blue color

Refer disclaimer Overleaf

Precautions :	1. In Vitro diagnostic use only.
	2. Read the label before opening the container
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.The pH affects the performance of the medium and must be correctly monitored , hence appearance must be verified before inoculation.
Use:	Recommended for differentiating members of Enterobacteriaceae on the basis of citrate utilization.
Storage:	Store between 2-8°C. Use before expiry date on the label.
Packing:	10/25 disposable slants.