

Simmons Citrate Agar

Use and description:

This medium contains only sodium citrate as carbon source is used for differentiation of *Enterobacteriaceae*. Some organisms have ability to utilize citrate and inorganic ammonium salts. They will grow and alkalize the medium changing its colour from green to blue. Organisms that cannot utilize these carbon sources grow poorly and the colour of the medium remains green.

Composition per liter:

Sodium citrate.....	2.00 g
Dipotassium H phosphate.....	1.00 g
Sodium chloride.....	5.00 g
Ammonium dihydrogen phosphate.....	1.00 g
Magnesium sulphate.....	0.20 g
Bromthymol blue.....	0.08 g
Agar.....	15.00 g

Final pH of the ready to use medium: 6.9 ± 0.2

Medium preparation:

Add 24 grams of dehydrated culture medium to 1 liter distilled water until evenly dispersed. Heat while stirring, if necessary, to obtain solution. Distribute into test tubes and autoclave for 15 min at 121°C. AFTER AUTOCLAVING, SLANT TUBES TO PREPARE DEEP BUTTS.

Quality specification:

Dehydrated medium: homogeneous, light beige with a green tinge fine powder.
Ready to use medium: clear to trace hazy and forest green.

Microbiological response:

Organism	Growth	Colour
<i>Enterobacter aerogenes</i> ATCC 13048	Growth	Blue
<i>Escherichia coli</i> ATCC 25922	Inhibited	Green
<i>Salmonella typhimurium</i> ATCC 14028	Growth	Blue

Storage:

Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or if the color has changed from the original.