PRODUCT INFORMATION

Simmons Citrate Agar

Cat. No. S19-111

DESCRIPTION

Simmons Citrate Agar is used as a differential medium for the identification of enteric bacteria, using citrate as the sole source of carbon. Koser developed a fluid medium to determine citrate utilization with Simmon further modifying the formula by adding 1.5% agar and bromothymol blue as an indicator. The medium can be used to distinguish between *Escherichia coli* and *Enterobacter aerogenes* and to assist in differentiating members of the Salmonella genus. Organisms able to metabolize the citrate grow well on the surface of the medium and alkalinize the medium changing it from green to blue.

FORMULA (g/L)

Sodium Chloride	5.0 g	Magnesium Sulfate	0.2 g
Sodium Citrate	2.0 g	Bromothymol Blue	0.08 g
Ammonium Dihydrogen Phosphate	1.0 g	Agar	15.0 g
Potassium Phosphate Dibasic	1.0 g		

Final pH: 6.9 ± 0.2 at 25 ºC

*Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 24.3 grams of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring to dissolve completely. Distribute and autoclave at 121°C for 15 minutes. After autoclaving, place medium on a slant and allow for solidification.

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogenous, free flowing, light beige with a green tinge.
2. Visually the prepared medium is clear to trace hazy and forest green.
3. Expected cultural response after 18-48 hours at 35 ºC.

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ORGANISM	RESULT
Escherichia coli ATCC 25922	Inhibited – Green Medium
Enterobacter aerogenes ATCC 13048	Good Growth – Blue Medium
Salmonella typhimurium ATCC 14028	Good Growth – Blue Medium
Salmonella choleraesuis ATCC 13076	Good Growth – Blue Medium
Shigella flexneria ATCC 12022	Inhibited – Green Medium

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.

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