

SIMMONS CITRATE AGAR

Differential medium for enterobacteria identification.

TYPICAL FORMULA	(g/l)
Magnesium Sulfate	0.2
Ammonium Dihydrogen Phosphate	1.0
Dipotassium Phosphate	1.0
Sodium Citrate	2.0
Sodium Chloride	5.0
Brom Thymol Blue	0.08
Agar	15.0

Final pH = 6.8 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 24.3 g of powder in 1 liter of distilled or deionized water. Heat to boiling until completely dissolved. Dispense into final tubes and sterilize in the autoclave at 121°C for 15 minutes. Allow the medium to solidify in a slant position.

DESCRIPTION

SIMMONS CITRATE AGAR is recommended for the differentiation and identification of *Enterobacteriaceae* on the basis of citrate utilization.

TECHNIQUE

Inoculate the medium with the specimen by stabbing the butt and streaking the slope. Incubate at 36 ± 1 °C for 24-48 hours. Organisms able to utilize ammonium dihydrogen phosphate and sodium citrate as the sole sources of nitrogen and carbon respectively will grow on this medium and produce an alkaline reaction as evidenced by a change in the color of the bromthymol blue indicator from green (neutral) to blue (alkaline).

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: yellow, may have green tinge.

Prepared medium

Appearance: slightly opalescent, may have a slight precipitate.

Color: forest green.

Incubation conditions: 36 ± 1°C for 24-48 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Escherichia coli</i>	25922	inhibited	
<i>Enterobacter aerogenes</i>	13048	good	blue
<i>Salmonella typhimuriums</i>	14028	good	blue
<i>Salmonella typhi</i>	19430	good	green

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared tubes at 2-8 °C.



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REFERENCES

1. Ewig W.H. and Edwards P.R. (1960). Bull. Bact. Nomen. And Taxon. **10**:1-12.
2. American Public Health Association (1981). Standard Methods for the Examination of Water and Wastewater, 15th ed. APHA Inc, Washington DC.
3. Matsen J.M., and Sherris J.C. (1969) Appl. Microbiol. **18**: 452-454.

PRESENTATION

Product	REF	Σ
SIMMONS CITRATE AGAR (20.5 l)	610046	500 g
SIMMONS CITRATE AGAR (4.1 l)	620046	100 g

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	IVD <i>In Vitro</i> Diagnostic Medical Device
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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SIMMONS CITRATE AGAR – SIMONSO CITRATINIS AGARAS

PARUOŠIMAS

24,3 g terpės suspenduojama viename litre distiliuoto vandens. Kaitinant maišoma, kol visiškai ištirpsta. Išpilstoma į mėgintuvėlius. Sterilizuojama autoklavuojant 121° C 15 minučių. Leidžiama terpei nuožulniai sukietėti.

PANAUDOJIMAS

SIMONSO CITRATINIS AGARAS yra terpė skirta diferencijuoti ir indentifikuoti enterobakterijas pagal jų sugebėjimą įsisavinti citratą kaip vienintelį anglies šaltinį. Terpė savo sudėtyje taip pat turi vienpakaitį amonio fosfatą kaip pagrindinį nitrogenu šaltinį. Mikroorganizmai, kurie įsisavina citratą, kaip anglies šaltinį, taip pat įsisavina amonio druskas. Tai sukelia terpėje šarminę reakciją ir indikatoriaus spalva pasikeičia į mėlyną. Citratą neįsisavinančios bakterijos neauga.

KULTŪRŲ CHARAKTERISTIKOS PO 24 - 48 VALANDŲ INKUBAVIMO 36+/-1°C TEMPERATŪROJE

Mikroorganizmai	Augimas	Terpės spalva
<i>Enterobacter aerogenes</i> ATCC 13048	Geras	Mėlyna
<i>Escherichia coli</i> ATCC 25922	Inhibuojamas	
<i>Salmonella typhimurium</i> ATCC 14028	Geras	Mėlyna
<i>Salmonella typhi</i> ATCC 19430	Geras	Žalia

FORMULĖ (g/litre)

Vienpakaitis kalio fosfatas	1
Dvipakaitis kalio fosfatas	1
Natrio chloridas	5
Natrio citratas	2
Magnio sulfatas	0,2
Bromtimolio mėlis	0,08
Agaras	15

pH = 6,8+/- 0,2

PRODUKTAS	KODAS	ĮPAKAVIMAS
SIMMONS CITRATE AGAR	610046	500 g
	620046	100 g