



#### Reference: 4001

#### **Technical Data Sheet**

# CEIVD

## Product: SIMMONS CITRATE AGAR ISO 10273

#### **Specification**

Medio para verificar la utilización de citrato en enterobacterias, según la normas ISO.

#### **Presentation**

20 Tubes - Slant	Packaging Details	Shelf Life	Storage
Tube 16 x 113 mm	1 box with 20 tubes, 16x113 mm glass tubes, ink	12 months	8-25°C
with: 6,2 ± 0,3 ml	labelled and Metalic cap.		

#### Composition

Composition (g/I):	
Magnesium sulfate	0.20
Monoammonium phosphate	1.00
Dipotassium phosphate	1.00
Sodium citrate	2.00
Sodium chloride	5.00
Bromothymol blue	0.08
Agar	15.00

#### **Description / Technique**

#### Description:

Simmons Citrate Agar is the solid version of the classical Koser citrate medium, and can be used in plates format as well as in slanted tubes. Slant tubes can be inoculated by surface streaking or by a deep stab. Although it was originally described as an isolation and identification medium for certain fungi, Edwards and Ewing recommended it for the IMViC (Indol, Methyl red, Vogues Proskauer and Citrate) test. It has the advantage over Koser's medium that readings can be made by the indicator colour change, instead of the turbidity of the medium, which is sometimes difficult to detect.

To ensure an accurate result use an inoculum as small as possible and unsure the medium is freshly prepared, because if it is very dry, a false result (colour change) may appear, even before inoculation, especially at the bottom of the slant.

The basis of this medium is in the capacity of microorganisms to use citrate as a sole carbon source and ammonium compounds as the only nitrogen source for their growth. Among enterobacteria, these properties are possessed by the following genera: Enterobacter, Klebsiella, Serratia, Citrobacter and some species of Salmonella such as S. schottumelleri, S. typhimurium, S. arizona etc. Escherichia, Shigella, Salmonella typhi and S. paratyphi are unable to growon this media.

Although the test result must be read as growth proceeds, the presence of an indicator makes it easier, as citrate degradation results in an alkaline reaction, which is indicated by the indicator turning an intense blue. This is evident even when the growth is at an early stage.

#### **Quality control**

#### Physical/Chemical control

Color: Green pH: 6.8 ± 0.2 at 25°C

#### Microbiological control

Poor inoculum. Loop spreading

Aerobiosis. Incubation at 35°C ± 2°C, reading at 24-48 hours

#### Microorganism Growth

Inhibited- Green medium Escherichia coli ATCC® 25922 Good- Blue medium Pseudomonas aeruginosa ATCC® 27853 Good- Blue medium Enterobacter aerogenes ATCC®13048 Good- Blue medium Salmonella typhimurium ATCC® 14028 Inhibited- Green medium Escherichia coli ATCC® 8739

#### **Sterility Control**

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH Check at 7 days after incubation in same conditions

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