



Reference : 01-828

Scharlau Microbiology - Technical data sheet

Product :
Microinstant® Chromogenic Cronobacter Isolation
(CCI) Agar

Also known as

CCI Agar

Specification

Solid differential culture medium for the presumptive isolation of Cronobacter colonies, according to ISO 22964: 2017.

Formula * in g/L

Tryptic digest of casein..... 7.00
 Yeast extract..... 3.00
 Sodium chloride..... 5.00
 Sodium desoxycholate..... 0.25
 5-Br-4-Cl-3-indolyl-
 α-D-glucopyranoside..... 0.15
 Ammonium iron(III) citrate..... 1.00
 Sodium thiosulphate..... 1.00
 Agar..... 15.00

Final pH 7,3 ± 0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 32.4 g of the powder in a liter of purified water and let it soak. Bring to boiling with constant agitation until complete dissolution of agar. Dispense into suitable containers and sterilise in the autoclave at 121 °C for 15 minutes. Cool to 45-50 °C and aseptically pour into Petri dishes. The solidified medium must not be melted or overheated.

Description

CCI Agar is the only culture medium prescribed for the isolation of presumptive *Cronobacter* colonies in the Horizontal Method for the Detection of *Cronobacter* in food, according to ISO 22964: 2017.

Technique

The surface of CCI agar is inoculated from the enrichment tubes to obtain separate colonies. Plates are incubated at 41.5 °C for 24 ± 2 hours. After incubation, the presence of typical colonies of presumptive Cronobacter is observed and recorded.

On this medium the presumptive colonies of Cronobacter are small or medium (of 1-3 mm Ø) of blue or blue-green color. The colonies of other bacteria are usually white, or white with the center darker, green, gray or even black. Some other pigmented colonies may appear yellow, orange or red.

For a more detailed methodology, the technician is referred to ISO 22964:20017 standards.

Quality control**Incubation temperature:** 41.5° C ± 1.0**Incubation time:** 24 h ± 2

Inoculum: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10⁴ -10⁶ CFU (selectivity)/ ≥ 10³ CFU (specificity). according to ISO 11133:2014/Amd 1:2018.

Microorganism	Growth	Remarks
<i>Cronobacter sakazakii</i> ATCC® 29544	Good	Ligth blue-green colonies of 1-3 mm diameter
<i>Cronobacter muytjensii</i> ATCC® 51329	Good	Blue-green colonies of 1-3 mm diameter
<i>Staphylococcus aureus</i> ATCC® 25923	No growth	-
<i>Enterobacter cloacae</i> ATCC® 13047	Poor to good	Colorless colonies

References

- ISO 22964 Standard (2017) Microbiology of the food chain – Horizontal method for the detection of Cronobacter spp.
- IVERSEN C., A. LEHNER, N. MULLANE, J. MARUGG, S. FANNING, R. STEPHAN, y H. JOOSTEN (2007) The identification of Cronobacter spp. (*Enterobacter sakazakii*). J.Clin. Microbiol. 45:3814-3816
- IVERSEN, C., P. DRUGGAN, S. SCHUMACHER, A. LEHNER, C. FEER, K. GSCHWEND, H. JOOSREN y R. SDTEPHAN (2008) Development of a Novel Screening Method for the Isolation of “Cronobacter” spp. (*Enterobacter sakazakii*). Appl. Environm. Microbiol. 74:2550-2553.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).



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