Product :

Cronobacter selective broth base (CSB)

Also known as

CSB

Specification

Liquid culture medium for the selective enrichment of *Cronobacter spp.* from the pre-enrichment of food samples, in accordance with ISO 22964: 2017.

Formula * in g/L

Enzymatic Digest of Animal Tissues..... 10.00
Meat extract 3.00
Sodium Chloride 5.00
Bromocresol purple 0.04
Sucrose 10.00

Final pH 7.4 ±0.2 at 25 °C

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

Directions

Dissolve 28.04 g of the powder in 1 liter of distilled water by heating if necessary. Distribute in tubes at a rate of 10 mL / tube and sterilize in the autoclave 15 minutes at 121 °C. The base broth thus prepared can be kept in refrigeration for 6 months maximum. Immediately before use add Vancomycin (Ref. 06-712LYO1) to the broth in sufficient quantity to be at a concentration of 10 mg / L. Once the antibiotic has been added the medium is only active for 24 hours. After this time uninoculated whole medium tubes should be discarded.

Description

The CSB medium is the only one that is contemplated for the selective enrichment phase of Cronobacter in the Horizontal Method for the Detection of Cronobacter ssp. in food (ISO 22964: 2017). Its selectivity is based on the inhibitory action of the accompanying microbiota exerted by vancomycin.

Technique

The sample is pre-enriched for 18-20 hours at 34-38 ° C in buffered peptone water. From the pre-enrichment aliquots are taken which inoculate the CSB tubes and incubate at 41.5 ± 1 ° C for 24 ± 2 hours. From the tubes showing growth is passed to the plates of the isolation medium.
For more details, the technician is referred to ISO 22964: 2017.

Quality control

Incubation temperature: 41.5º C ± 1,0 **Incubation time:** 24 h ± 2

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (productivity) / 10^4-10^6 CFU (selectivity) according to ISO 11133:2014/Amd 1:2018.

Microorganism	Growth	Remarks
Cr. sakazakii ATCC® 29544 + ATCC® 25923	Good (Yellow medium)	recovery in CCI >10 CFU. Characteristic coln.
Cr. muytjensii ATCC® 51329 + ATCC® 25923	Good (Yellow medium)	recovery in CCI >10 CFU. Characteristic coln.
Staphylococcus aureus ATCC® 25923	Total or partial inhibition	recovery in TSA ≤100 CFU

References

· ISO 22964 (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, and 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 and 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 ºC to 30 ºC).