

Food testing

Validated detection and identification of *Cronobacter* species in 3 days

Thermo Scientific Cronobacter Precis Method

Reinventing the standard for culture-based *Cronobacter* testing

Cronobacter (formerly *Enterobacter sakazakii*) are Gram-negative rod-shaped members of the family *Enterobacteriaceae* that have been implicated as causative agents of disease in premature infants (neonates), causing sepsis, meningitis, and necrotizing enterocolitis.

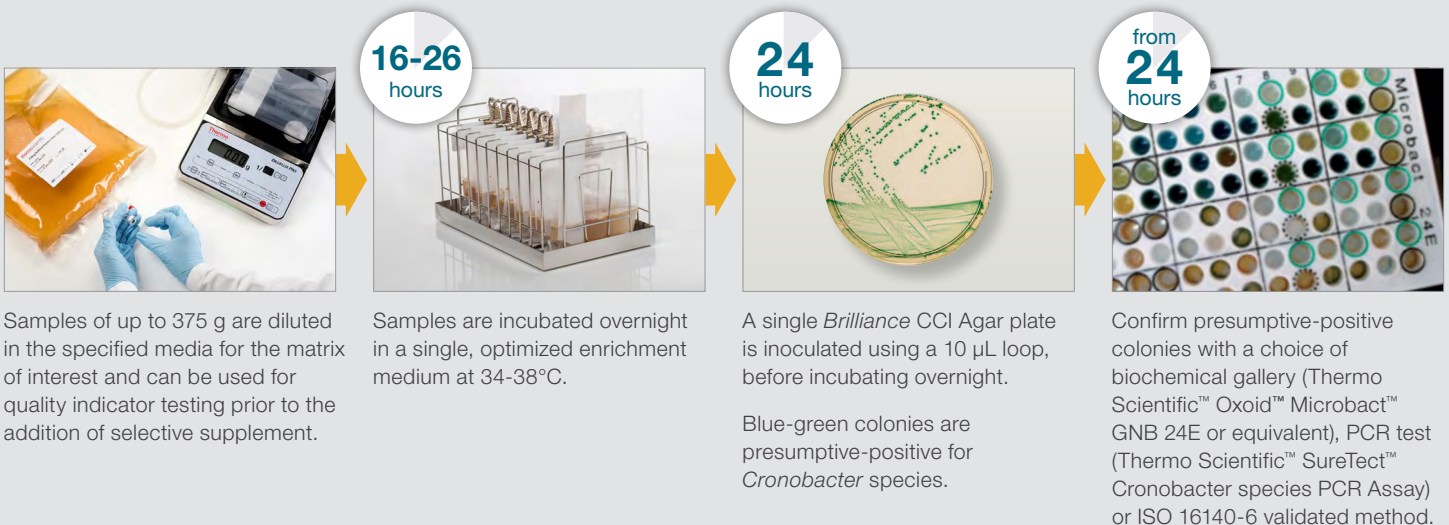
In particular, *Cronobacter* spp. have been isolated at low levels from powdered infant formulae (PIF), and the organisms' high tolerance to desiccation provides a competitive advantage in the dry environments of milk powder factories, increasing the risk of product contamination.

The Thermo Scientific™ *Cronobacter* Precis™ Method offers an alternative to the ISO 22964:2017 reference workflow by requiring

only one enrichment prior to plate inoculation, significantly shortening overall time-to-result. This simplified and rapid workflow has been validated according to the ISO 16140-2:2016 standard by MicroVal™.

The *Cronobacter* Precis Method has been designed to overcome sensitivity and specificity issues, without the need to carry out non-standard handling steps, generating results in under three days.

Thermo Scientific™ Oxoid™ *Brilliance*™ Chromogenic *Cronobacter* Isolation (CCI) Agar plates may also be used as part of the ISO 22964:2017 horizontal method for the detection of *Cronobacter* spp. in food, animal feed and environmental samples.



Key Benefits:

- Simple procedure—no specialized equipment required
- Single overnight enrichment
- Single sample transfer
- Single 24-hour plate incubation
- Option to incubate broths and plates at the same temperature for workflow simplicity
- Harmonized enrichment for *Cronobacter* and *Salmonella* for relevant matrices
- Reduced time to result: Under three days compared with up to five days for standard culture methods
- *Brilliance* CCI Agar improves recovery of *Cronobacter* by reducing background flora. Chromogens aid easy identification and differentiation by producing brightly colored colonies
- The Oxoid Microbact GNB 24E Kit or the SureTect *Cronobacter* species PCR Assay ensure a rapid and simple confirmation for isolated characteristic colonies from the CCI Agar plate

A rapid, simple, and robust culture-based workflow

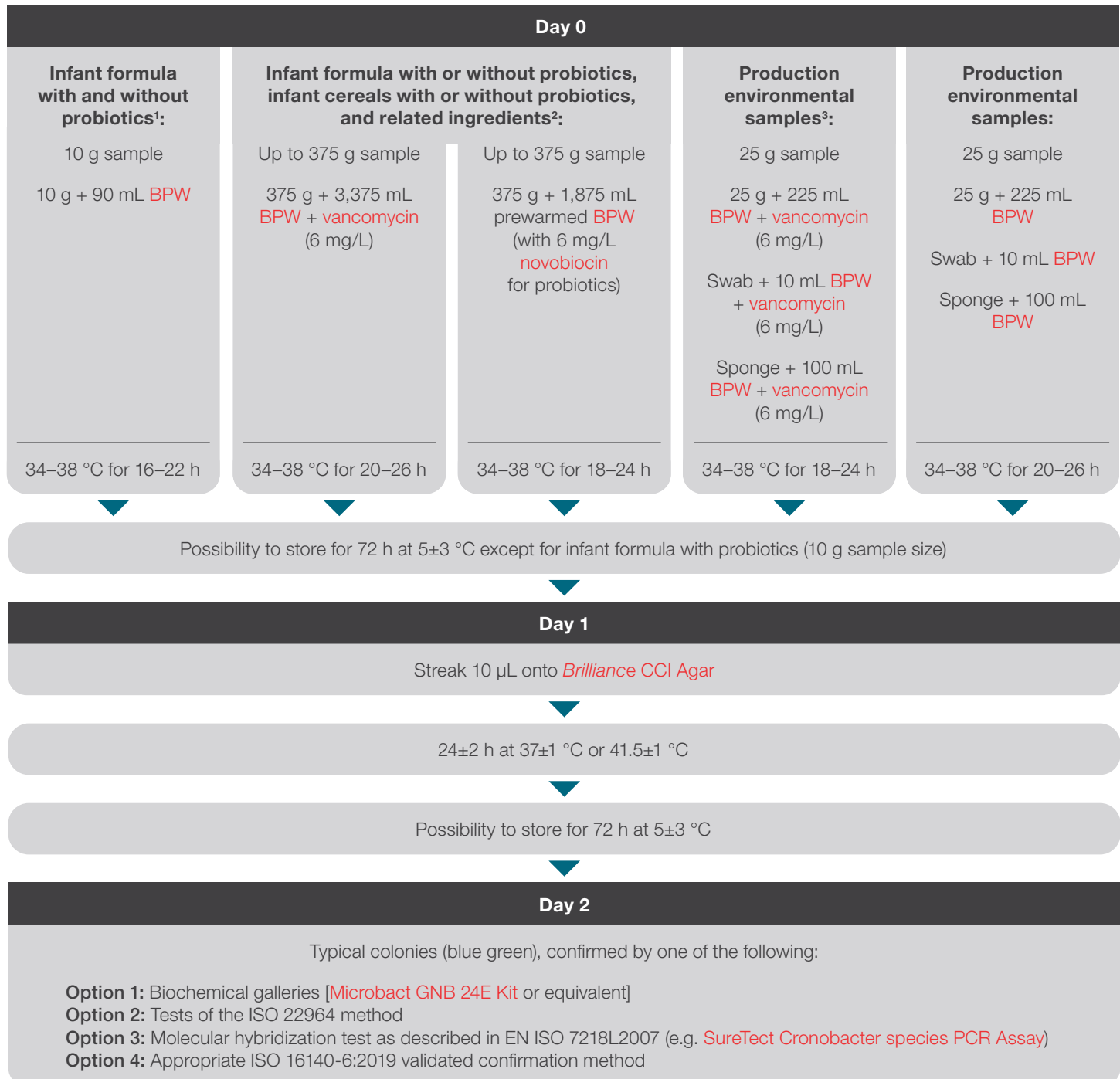
The Cronobacter Precis Method has been validated and certified according to the ISO 16140-2:2016 standard by MicroVal™.

For more information about the MicroVal certification, see certificate 2020LR93 available at <http://www.microval.org> or obtain from our technical support team.

For flexibility, either the Microbact GNB 24E Kit or the SureTect Cronobacter species PCR Assay can be used for fast and simple

confirmation of isolated characteristic colonies from the *Brilliance* CCI Agar plate.

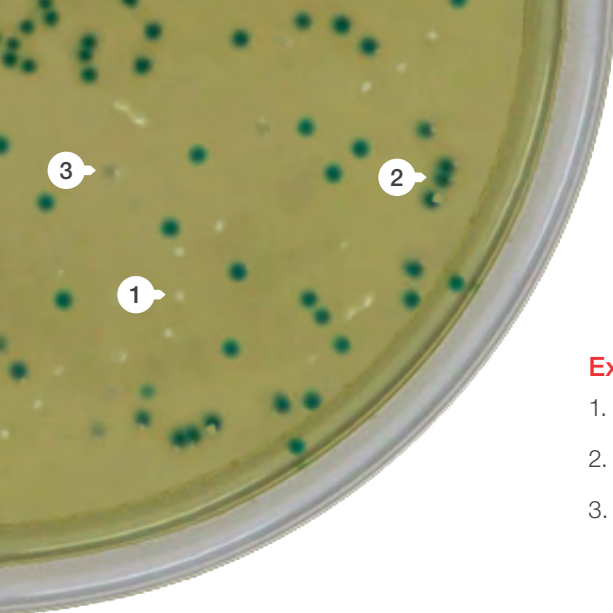
However, depending on the legislation territory, it is also possible to use any appropriate EN ISO 16140-6:2019 validated confirmation method or any appropriate ISO 22964:2017 reference confirmation procedure.



1. No addition of α-amylase required.

2. No addition of α-amylase required. It is possible to test smaller sample sizes by adjusting the volume of BPW + vancomycin (6 mg/L) smaller sample size by adjusting the enrichment broth volume, maintaining the same dilution ratio.

3. For sampling after cleaning process, premoisten: 1 swab + 1 mL broth universal neutralizing (+9 mL BPW) OR 1 sponge + 10 mL broth universal neutralizing (+90 mL BPW)




Example results – Mixed culture

1. *Escherichia coli*
2. *Cronobacter* spp.
3. *Enterobacter cloacae*

Ordering information

Product description		Format	Order code	
Oxoid Culture Media	Buffered Peptone Water	Buffered Peptone Water (ISO)	500 g, makes 25 L	CM1049B
	Buffered Peptone Water	Buffered Peptone Water (ISO-meat peptone)	500 g, makes 25 L	CM1211B
	Novobiocin Supplement	Novobiocin Supplement - freeze-dried	10 vials of 10 mg	SR0181E
		Novobiocin Supplement - liquid (40 mL/vial)	10 vials of 40 mg	SR0249A
	Vancomycin Supplement	Vancomycin Supplement - freeze-dried	10 vials of 3 mg	SR0186E
		Vancomycin Supplement - freeze-dried	10 vials of 5 mg	SR0247E
Chromogenic Cronobacter Isolation Agar	CCI Agar – dehydrated	500 g makes 16.3 L	CM1122B	
Microbact GNB Kit	Microbact GNB 24E Kit	40 tests/kit	MB1131A	
SureTect Cronobacter species PCR Assay		1 kit	A56845	

Please note that a range of alternative formats of culture media, such as Bagged Enrichment Media and Prepared Plate Media, are available. Please contact your local representative or technical services to find out more.

 For more information about the Thermo Scientific Cronobacter Precis Method and other rapid culture media methods for detecting foodborne pathogens thermofisher.com/precis