



# Rapid Cronobacter Sakazakii Testing

Ensuring infant formulas & milk powder are safe

*Cronobacter sakazakii*, an opportunistic pathogenic microorganism, can cause serious illness in infants and is often associated with powdered infant formulas, milk powders and their constituents. Ingredients such as skimmed milk powder, starch and lecithin can become contaminated or by environmental contamination after production or during packaging of the product.

*Cronobacter sakazakii* infections can cause very severe symptoms in newborns, including necrotising enterocolitis, meningitis and septicaemia and are sometimes fatal. The number of cells required to cause an infection is unknown, so a highly specific and sensitive test is required.

## Regulation

With these serious infections associated with *C. sakazakii*, EU regulation has been put in place where EC No. 1441/2007 sets out *Cronobacter* spp. 'absence in 10g' for infant formula during its shelf life. Furthermore Codex alimentarius CAC/RCP 66 Code of hygienic practice for powdered formulae for infants and young children sets out guidelines for monitoring programmes for *Salmonella* and *Cronobacter* spp. in infant formula preparation units.

## Rapid test

Eurofins Wolverhampton has combined the use of immunological and real-time PCR technologies to provide a highly specific and sensitive rapid test that takes less than 24 hours to provide a result. The test can pool up to 5 samples, which means that product release is quicker and the product is on the shelves faster.

The test uses Pathatrix technology to selectively concentrate the organisms and is combined with PCR detection of DNA specific to *Cronobacter sakazakii*, ensuring confidence in the results.

## Advantages

The advantages of the Eurofins *Cronobacter sakazakii* rapid test are:

- Negative results in 24 hours allowing positive release
- Highly specific and sensitive test
- Combined immuno technology and DNA gives high level of confidence in results
- Extensively validated for use in milk powder, powdered infant formula and constituents.

## Advantages

- Presumptive positive samples can be isolated from the Pathatrix bead, speeding up release time
- Pooling of samples for screening reduces cost per test
- UKAS accreditation (0342)

## Cronobacter sakazakii testing

Eurofins offers screening of up to 5 pre-enriched samples pooled together and tested as one, making it very cost effective and only positive pools need to be retested individually.

Test Description	Sample Type	Eurofins Test Code	
		Foods	Swabs
Rapid Cronobacter Sakazakii detection (Pathatrix & real-time PCR)	Single samples	UMBBS	UMRZH
	5 pooled samples	UMJW8	UMU9G

## Comprehensive service

Eurofins provides a comprehensive range of state-of-the-art analytical techniques to support our customers' in establishing the safety, composition, authenticity, origin, traceability and purity of our food. Our laboratories in the UK provide microbiological testing, nutritional information, pesticide residues, contaminants, mycotoxins and heavy metals analysis. We are supported by an international network of Eurofins Competence Centres providing vitamin, authenticity and other specialist analysis. Please contact us for further information.

