

## Technical Information

### Cronobacter Screening Broth

**Product Code: DM 2786**

**Application:** - Cronobacter Screening Broth is recommended for screening *Cronobacter* (formerly *Enterobacter sakazakii*) from food and environmental samples.

### Composition\*\*

Ingredients	Gms / Litre
Peptone	10.000
Meat extract	3.000
Sodium chloride	5.000
Bromocresol purple	0.004
Sucrose	10.000
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Principle & Interpretation

*Cronobacter* (formerly *Enterobacter sakazakii*) are gram-negative rod-shaped Enterobacteriaceae that have been implicated in outbreaks of disease causing sepsis, meningitis and necrotising enterocolitis (1) *Cronobacter* species have also been isolated from powdered infant formula as high tolerance to desiccation provides a competitive advantage in dry environments increasing the risk of contamination (2). Cronobacter Screening Broth was specifically designed by Iversen *et al* (3). Peptone and meat extract provide carbonaceous, nitrogenous and growth nutrients. Sodium chloride maintains osmotic equilibrium. Sucrose present is fermented by *Cronobacter*. Consequently the broth turns yellow after incubation.

### Methodology

Suspend 28.0 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Aseptically add the contents of 1 vial of Vancomycin supplement (MS 2233). Mix well and dispense into sterile test tubes.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Colour and Clarity

Purple coloured clear solution forms in tubes.

#### Reaction

Reaction of 2.8% w/v aqueous solution at 25°C. pH : 7.4±0.2

#### pH Range

7.20-7.60

#### Cultural Response

DM2786: Cultural characteristics observed with added Vancomycin Supplement (MS 2233), after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Colour of medium
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#### Cultural Response

<i>Cronobacter sakazakii</i> ATCC 12868	50-100	luxuriant	yellow colour
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Dehydrated Culture Media  
Bases / Media Supplements

<i>Staphylococcus aureus</i> ATCC 25923	$\geq 10^3$	inhibited	-
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	purple colour
<i>Enterococcus faecalis</i> ATCC 29212	$\geq 10^3$	inhibited	-

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on label.

**Prepared Media:** 2-8° in sealable plastic bags for 2-5 days.

## Further Reading

1. Mullane et al. 2007. Minerva Pediatr. 59.137-148.
2. Lai.2001.Medicine.80.113-122.
3. Iversen et al.2008.Appl.Environ.Microbiol.74, 2550-2552.

## Disclaimer :

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