



# Technical Data

## HiCrome Enterobacter sakazakii Agar, Modified

M1641

HiCrome Enterobacter sakazakii Agar, Modified is recommended for the isolation and identification of *Cronobacter sakazakii* from milk and milk products. The composition and performance of this media are as per specified in ISO /TS 22964: 2006.

### Composition\*\*

Ingredients	Gms / Litre
Casein enzymic hydrolysate#	7.000
Yeast extract	3.000
Sodium chloride	5.000
Sodium deoxycholate	0.600
5-Bromo-4-chloro-3-indolyl $\alpha$ -D-glucopyranoside	0.150
Crystal violet	0.002
Agar	15.000
Final pH ( at 25°C)	7.0 $\pm$ 0.2

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

# - Equivalent to Pancreatic digest of casein

### Directions

Suspend 30.75 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

*Enterobacter* species are widely distributed in nature occurring in fresh water, soil, sewage, plants, vegetables, animal and human faeces. *Cronobacter sakazakii* has been closely associated with neonatal meningitis and sepsis (1). HiCrome™ Enterobacter sakazakii Agar, Modified is recommended by ISO Committee for the isolation and identification of *C.sakazakii* (2). The chromogenic substrate (5-Bromo-4-chloro-3-indolyl  $\alpha$ -D-glucopyranoside) is cleaved specifically (3) by *C.sakazakii* resulting in the formation of blue green colonies. Other organisms, which do not cleave this substrate, produce colourless to slightly violet coloured colonies.

Casein enzymic hydrolysate and yeast extract provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. Sodium chloride helps in maintaining the osmotic equilibrium of the medium. Sodium deoxycholate and crystal violet inhibits the accompanying gram-positive flora.

Key: \*: Formerly known as *Enterobacter sakazakii*

### Quality Control

#### Appearance

Light yellow to pink homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light purple coloured, clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 3.07% w/v aqueous solution at 25°C. pH : 7.0 $\pm$ 0.2

#### pH

6.80-7.20

#### Cultural Response

M1641: Cultural characteristics observed after an incubation at 44 $\pm$ 1°C for 22-26 hours.

Please refer disclaimer Overleaf.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of Colony
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	>=50%	colourless with blue centre
<i>Enterococcus faecalis</i> ATCC 29212	>=10 <sup>3</sup>	inhibited	0%	
* <i>Cronobacter sakazakii</i> ATCC 12868	50-100	good-luxuriant	>=50%	blue-green
<i>Staphylococcus aureus</i> ATCC 25923	>=10 <sup>3</sup>	inhibited	0%	

Key: \*: Formerly known as *Enterobacter sakazakii*

## Storage and Shelf Life

Store dehydrated powder in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

## Reference

1. Muytjens H. L., Zanen H. C., Sonderkamp H. J. et al, J. Clin Microbiol 18:115-120, 1983.
2. International Organization for Standardization. Milk and Milk products- Detection of *Enterobacter sakazakii* Draft ISO/ TS 22964, 2006 (E).

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