

## TM 2118 – CHROMOGENIC CRONOBACTER ISOLATION AGAR

### INTENDED USE

Recommended for the isolation and identification of *Cronobacter sakazakii* from food product.

### PRODUCT SUMMARY AND EXPLANATION

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

\*: Formerly known as *Enterobacter sakazakii*

### COMPOSITION

Ingredients	Gms / Ltr
Tryptic digest of casein	7.000
Sodium chloride	5.000
Yeast extract	3.000
Sodium deoxycholate	0.250
5-Bromo-4-chloro-3-indolyl $\alpha$ -D-glucopyranoside	1.500
Ammonium iron(III) citrate	1.000
Agar	15.000
Sodium thiosulphate	1.000

### PRINCIPLE

Tryptone 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 inhibits the accompanying gram-positive flora.

### INSTRUCTION FOR USE

- Dissolve 32.4 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.

### QUALITY CONTROL SPECIFICATIONS



**Appearance of Powder** : Cream to yellow to pink homogeneous free flowing powder  
**Appearance of prepared medium** : Yellow coloured, clear to slightly opalescent gel forms in Petri plates  
**pH (at 25°C)** : 7.3 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Cronobacter sakazakii</i>	25944	50-100	luxuriant	>=50%	Blue green	41.5±1°C	24±2 Hours
<i>Cronobacter muytjensii</i>	51329	50-100	luxuriant	>=50%	Blue green	41.5±1°C	24±2 Hours
<i>Enterobacter cloacae</i>	13047	50-100	luxuriant	>=50%	Colourless without green or blue green colour	41.5±1°C	24±2 Hours
<i>Staphylococcus aureus</i>	25923	>=10 <sup>3</sup>	Inhibited	0%		41.5±1°C	24±2 Hours

### PACKAGING:

In pack size of 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

- Muytjens H. L., Zanen H. C., Sonderkamp H. J. et al, J. Clin Microbiol 18:115-120, 1983.
- International Organization for Standardization. Microbiology of the food chain- Horizontal method for the detection of Cronobacter spp. Draft ISO/ TS 22964, 20176 (E).



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
**Revision: 08 Nov., 2019**