



HiCrome Enterobacter sakazakii HiVeg Agar

MV1577

HiCrome Enterobacter sakazakii HiVeg Agar is recommended for the isolation and identification of *Cronobacter sakazakii* from food and dairy products.

Composition**

Ingredients	Gms / Litre
HiVeg hydrolysate	15.000
Papaic digest of soyabean meal	5.000
Sodium chloride	5.000
Synthetic detergent no. III	0.500
Sodium thiosulphate	1.000
Chromogenic mixture	10.170
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 51.67 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 and pour into sterile Petri plates.

Principle And Interpretation

HiCrome Enterobacter sakazakii HiVeg Agar is prepared by replacing animal based peptones with vegetable peptones. This replacement makes the medium BSE/TSE risk free. HiCrome Enterobacter sakazakii HiVeg Agar is a modification of HiCrome Enterobacter sakazakii Agar. *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). The chromogenic substrate in HiCrome Enterobacter sakazakii Agar is cleaved specifically (2) by the glucosidase enzyme possessed by *Enterobacter* species resulting in formation of blue-green colonies. Other organisms, which do not cleave this substrate, produce yellow coloured colonies. Incorporation of the chromogenic mixture in the media renders an intense blue colour to *C.sakazakii* colonies whereas light blue green colour to the other *Enterobacter* species.

HiVeg hydrolysate and papaic digest of soyabean meal provide the essential growth nutrients along with nitrogenous and carbonaceous compounds. Sodium chloride helps in maintaining the osmotic equilibrium of the medium. Synthetic detergent no. III 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

Purple coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 5.16% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

MV1577: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of Colony
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	>=50%	yellow
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	good-luxuriant	>=50%	bluish green
<i>Enterococcus faecalis</i> ATCC 29212	>=10 ³	inhibited	0%	
<i>Enterobacter sakazakii</i> ATCC 12868	50-100	good-luxuriant	>=50%	blue
<i>Staphylococcus aureus</i> ATCC 25923	>=10 ³	inhibited	0%	
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	good-luxuriant	>=50%	yellow (mucoid)

Storage and Shelf Life

Store dehydrated powder and prepared medium at 2-8°C in tightly closed container. 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. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. 1, American Society for Microbiology, Washington, D. C.

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