Oh & Kang Agar (OK Agar)

M2090

Intended Use

Recommended for selective and differential isolation of *Cronobacter sakazakii* from food samples.

Composition**

Ingredients	Gms / Litre
Tryptone	20.00
Bile salt	1.500
Sodium thiosulphate	1.000
Ferric citrate	1.000
Fluorogenic substrate	0.050
Agar	15.000

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 38.55 grams in 1000 ml purified/ 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 feaces. **Cronobacter sakazakii* has been closely associated with neonatal meningitis and sepsis (3). Oh and Kang Agar is recommended by APHA for the isolation and identification of **C.sakazakii* from food samples (4). The Fluorogenic substrate (4-methylumbelliferyl-α-D-Glucoside) is cleaved specifically by **C.sakazakii* resulting in the formation of blue fluorescence under UV light.

Tryptone provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. Bile salt inhibits the accompanying gram-positive flora.

Key: *: Formerly known as *Enterobacter sakazakii*

Type of specimen

Food samples

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (4).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets

Limitations

1. Some species may show poor growth due to nutritional variations.
2. Further biochemical tests must be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored recommended temperature.

Quality Control

Appearance
Light yellow to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium
Yellow coloured, clear to slightly opalescent gel forms in Petri plates

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

Organism	Inoculum (CFU)	Growth	Recovery	Fluorescence under UV
Cronobacter sakazakii ATCC 29544 (00214*)	50-100	good-luxuriant	>=50%	positive
Cronobacter muytjensii ATCC 51329 (00213*)	50-100	good-luxuriant	>=50%	positive
Escherichia coli ATCC 25922 (00013*)	50-100	good-luxuriant	>=50%	negative
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited	0%	

Key: (*) Corresponding WDCM numbers

Storage and Shelf Life

Store dehydrated powder and prepared medium on receipt at 2-8°C. Use before expiry period on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
2. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
3. Muytjens H. L., Zanen H. C., Sonderkamp H. J. et al, J. Clin Microbiol 18:115-120, 1983.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

Revision : 01/ 2019