Stenotrophomonas Selective Agar Base

M1965

Intended Use:

Recommended for the cultural isolation of *Stenotrophomonas maltophilia.*

Composition**

Ingredients	g / L
Peptone special	10.000
Mannitol	10.000
Bromothymol blue	0.060
Agar	20.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 40.06 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilise by autoclaving at 15 lbs (121°C) for 15 mins. Cool to 45-50°C and aseptically add the rehydrated contents of one vial of VIA supplement (FD312). Mix well and pour in sterile Petri plates.

Principle And Interpretation

Stenotrophomonas maltophilia is emerging as an important nosocomial pathogen (1) associated with a variety of infections. It is an aerobic, non-fermentative, Gram negative bacterium previously known as *Pseudomonas maltophilia* or *Xanthomonas maltophilia.* Juhnke and Des Jardins developed *Xanthomonas maltophilia* selective medium for the isolation of *S. maltophila* from soil and rhizosphere environments (2). Antimicrobial agents were added to the media for selective isolation of *S. maltophilia* from clinical and environmental specimens likely to be contaminated with other bacteria. Media containing imipenem as the sole source of selective agent failed to inhibit the growth of some organisms so further addition of vancomycin and amphotericin B was done which facilitates selective isolation of *S. maltophilia* (3).

Peptone special serve as a rich source of nitrogen, vitamins, minerals and amino acids. Mannitol-bromothymol blue indicator system facilitates the differentiation of *S. maltophilia* (which does not produce acid from mannitol) from other gram-negative bacteria.

Type of specimen

Clinical samples: Organs and tissue, Respiratory swabs, Urine. (4,5,6)

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Some species may show poor growth due to nutritional variations.

Performance and Evaluation

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

Quality Control

Appearance

Cream to light green homogeneous free flowing powder

Gelling
Firm, comparable with 2.0 %Agar gel

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

Reaction
Reaction of 4.01% w/v aqueous solution at 25°C . pH : 7.2±0.2

pH
7.00-7.40

Cultural response
Cultural response was observed with added VIA supplement (FD312)after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Stenotrophomonas maltophilia ATCC 13636	50-100	luxuriant	>=50%
Stenotrophomonas maltophilia ATCC 13637	50-100	luxuriant	>=50%
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%
Salmonella Typhimurium ATCC 14028 (00031*)	>=10^4	inhibited	0%
Candida albicans ATCC 10231 (00054*)	>=10^4	inhibited	0%
Saccharomyces cerevisiae ATCC 9763 (00058*)	>=10^4	inhibited	0%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store below 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date 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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Reference

1. Department of Microbiology,University of Leeds, Leeds LS29JT,UK.
2. Juhnke M,des Jardin E:Selective medium for isolation of Xanthomonas maltophilia for soil and rhizosphere environments. Applied and Environmental Microbiology 1989,55:747-750.
3. Kerr K G, Denton M, Todd N J, Corps C M, Kumari P, Hawkey P M. A novel selective culture medium for the isolation of Stenotrophomonas maltophilia . Eur J Clin Microbiol Infect Dis. 1996;15:607-610.
4. Joanna S. Brooke, Clinical Microbiology Reviews, "Stenotrophomonas maltophilia: An Emerging Global Opportunistic Pathogen", 2012 Jan; 2-41.
5. Simit Kumar et.al., Advanced Biomedical Research, "Stenotrophomonas maltophilia: Complicating treatment of ESBL UTI," 2015; 4:36.
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7. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
8. 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.

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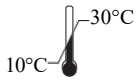
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE Marking

Do not use if package is damaged

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