Modified Salt Broth

M1068

Intended Use:

For the differentiation of Enterococcal group D Streptococci from nonenterococcal group D Streptococci.

Composition**

Ingredients	g / L
HMH peptone #	10.000
Peptone	10.000
Sodium chloride	65.000
Dextrose (Glucose)	1.000
Bromo cresol purple	0.016
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Heart Digest

Directions

Suspend 86.0 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Modified Salt Broth is used for differentiating enterococcal group D Streptococci from nonenterococcal group D Streptococci. High salt content of this medium acts as a differential and selective agent by interfering with membrane permeability and osmotic equilibrium(1). Salt tolerant strains grow within 48 hours. HMH peptone and peptone provide essential carbonaceous and nitrogenous nutrients while dextrose is the carbohydrate source in the medium. Bromocresol purple is the pH indicator which turns yellow from purple at acidic pH (2).Enterococcal group D *Streptococcus* species (*Enterococcus faecalis, Enterococcus faecium, Enterococcus durans* and *Enterococcus avium*) can be easily differentiated from the non enterococcal species like *Streptococcus bovis*, *Streptococcus equines*, by the 6.5%sodium chloride tolerance test. Serological group D Streptococci or bile esculine positive isolate may be easily identified as an *Enterococcus* species.

Type of specimen

Clinical samples- faeces

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:

In Vitro diagnostic use. 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. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.Well isolated colonies must be used to avoid erroneous results.

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 temperature.

Quality Control

Appearance

Light yellow to greenish yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Purple coloured clear solution may contain a slight precipitate.

Reaction

Reaction of 8.6% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

Cultural characteristics observed after an incubation at 35 - 37°C for 48 hours

Organism	Inoculum (CFU)	Growth
Enterococcus faecalis ATCC 29212 (00087*)	50-100	luxuriant
Streptococcus bovis ATCC 27960	>=10^4	Inhibited

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°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 (3,4).

Reference

1. MacFaddin J., 1985, Media for Isolation - Cultivation - Identification - Maintenance of Medical Bacteria, Vol.I, Williams and Wilkins, Baltimore.

2. Facklam and Caney, 1985, Manual of Clinical Microbiology, 4th ed., Lennette, Balows, Hausler and Shadomy (Eds), ASM, Washington, D.C.

3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

4. 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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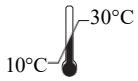
IVD ***In vitro* diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE **CE Marking**

Do not use if package is damaged