



PRODUCT SPECIFICATION SHEET

Salt Broth, Modified (DM958)

Intended Use

Salt Broth, Modified (DM958) is recommended for the cultivation and differentiation of the enterococcal group D *Streptococci* from non-enterococcal group D *Streptococci* based on salt tolerance.

Product Summary and Explanation

Salt Broth, Modified was designed to aid in the differentiation of enterococcal group D streptococci from non-enterococcal group D streptococci by determining the ability of bile esculin positive and catalase negative cocci to grow in the presence of 6.5% NaCl.⁽¹⁾ High salt content is a differential and selective agent as it interferes with membrane permeability and osmotic equilibrium.⁽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.

Principles of the Procedure

Salt Broth, Modified contains peptic digest of animal tissue and heart infusion which are essential nitrogenous source. Glucose is the fermentable carbohydrate source. Bromocresol purple is the pH indicator which under acidic condition of the medium turns yellow from purple.⁽¹⁾ Sodium chloride serves as differential and selective agent. Serological group D streptococci or bile esculin positive isolate may be easily identified as an *Enterococcus* species. Organisms that are capable of growing in the presence of a high salt concentration will also ferment glucose. Glucose fermentation produces an acid reaction which results in the bromocresol purple indicator turning yellow. Appearance of a yellow colour change in broth with indicator is indicative of a positive salt tolerance test.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Heart infusion	10.00
Glucose	1.00
Sodium chloride	65.00
Bromocresol purple	0.016
Final pH : 7.2 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 86.01 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense as desired and autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

Quality Control Specifications

Dehydrated Appearance	Cream to greenish yellow homogeneous free flowing powder
Prepared Medium	Purple coloured clear to slightly opalescent solution
Reaction of 8.6% Solution	pH : 7.2 ± 0.2 at 25°C



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Gel Strength	Not Applicable
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Expected Cultural Response: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Sr. No.	Organisms	Results to be achieved	
		Inoculum (CFU)	Growth
1.	<i>Streptococcus bovis</i> ATCC 9809	$\geq 10^3$	inhibited
2.	<i>Enterococcus faecalis</i> ATCC 29212	50 -100	good-luxuriant

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for standard test procedures.

Results

Refer to appropriate references and test procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Salt Broth, Modified

Product Code : DM958

Available Pack sizes : 500gm

References

1. Murray P. R., Baron J. H., Pfaller M. A., Tenover J. C. and Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. 1, Williams Wilkins, Baltimore, Md.

Further Information

For further information please contact your local MICROMASTER Representative.



MICROMASTER LABORATORIES PRIVATE LIMITED
Unit 38/39, Kalpataru Industrial Estate,
Off G.B. Road, Near 'R-Mall', Thane (W) - 400607. M.S. INDIA.
Ph: +91-9320126789/9833630009/9819991103
Email: sales@micromasterlab.com

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