

PRODUCT SPECIFICATION SHEET



Bile Salts Agar (DM299)

Intended Use

Bile Salt Agar (DM299) is recommended for isolation and enumeration of food poisoning-bile tolerant enteric bacilli.

Product Summary and Explanation

Bile Salt Agar is used for isolation and enumeration of enteric bacilli. Enteric bacilli include a variety of gram-negative bacilli, frequent inhabitant of the intestine as normal commensals or pathogens. They are mostly members of the Enterobacteriaceae family but members of other taxonomical groups (e.g. Vibrionaceae) are also considered in this category. These organisms can cause either intestinal or extra-intestinal infection.⁽¹⁾ *V. cholerae* thrives in water ecology, particularly surface water. Cholera infections are most commonly acquired from drinking water in which *V. cholerae* is found naturally or into which it has been introduced from the feces of an infected person. *Vibrio* species, like many other gram-negative bacteria, grow in the presence of relatively high levels of bile salts.⁽¹⁾ Bile Salt Agar is recommended by BIS⁽²⁾ for isolation, identification and enumeration of *Vibrio cholerae*.

Principles of the Procedure

Bile Salt Agar contains peptic digest of animal tissue, meat extract which provides carbonaceous, nitrogenous compounds and other essential nutrients growth for enteric bacilli. Sodium chloride maintains the osmotic balance of the medium. Sodium taurocholate inhibits most of the gram-positive organisms.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Meat extract	5.00
Sodium chloride	5.00
Sodium taurocholate	5.00
Agar	18.00
Final pH: 8.2 ± 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 43 grams of the medium in one liter of distilled water.
2. Heat if necessary, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Mix well and pour into sterile petri plates.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow coloured homogeneous free flowing powder
Prepared Medium	Light amber coloured clear to slightly opalescent gel forms in petri plates
Reaction of 4.0% Solution	pH : 8.2 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.8% Agar gel

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

Sr. No.	Organisms	Results to be achieved		
		Inoculum (CFU)	Growth	Recovery
1.	<i>Enterobacter aerogenes ATCC 13048</i>	50-100	good-luxuriant	≥50%
2.	<i>Escherichia coli ATCC 25922</i>	50-100	good-luxuriant	≥50%
3.	<i>Salmonella Typhi ATCC 6539</i>	50-100	good-luxuriant	0%
4.	<i>Staphylococcus aureus ATCC 25923</i>	≥10 ³	inhibited	≥50%
5.	<i>Vibrio cholerae ATCC 15748</i>	50-100	good-luxuriant	≥50%

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

Test Procedure

Refer appropriate references for specific test procedures for isolation and enumeration of enteric bacilli.

Results

Refer appropriate references and test procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 2 - 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 : Bile Salt Agar

Product Code : DM299

Available Pack sizes : 100gm / 500gm

References

1. Vanderzant C. and Splittstoesser D. (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, DC.
2. Bureau of Indian Standards IS : 5887 (Part V) Reaffirmed 1986.

Further Information

For further information please contact your local MICROMASTER Representative.



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