

PRODUCT SPECIFICATION SHEET

Dextrose Peptone Broth (DM082)

Intended Use

Dextrose Peptone Broth (DM083) is recommended for routine sterility testing, cultivation of fastidious organisms and enumeration of thermophiles from canned foods.

Product Summary and Explanation

Dextrose Peptone Agar is designed as suggested by Williams⁽¹⁾ for the cultivation of microorganisms, which are fastidious, or present in small numbers, and also for the enumeration of the thermophilic bacteria responsible for flat sour spoilage of canned foods. This medium is recommended by AOAC for the routine cultivation purpose.⁽²⁾

Principles of the Procedure

Dextrose Peptone Agar contains peptic digest of animal tissue which provides amino acids, peptides and other essential nutrients necessary for growth. Sodium chloride maintains the osmotic balance of the medium. Dextrose is the readily available energy source for the most of the organisms. The agar medium is also used as an excellent basal agar for the Glucose Blood Agar preparation. In the special Petri plates, it can support good growth of the anaerobic microorganisms.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	20.00
Sodium chloride	5.00
Dextrose	10.00
Agar	15.00
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 50 grams of the medium in one liter of distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Light yellow coloured, clear to slightly opalescent gel forms in petri plates
Reaction of 5.0% Solution	pH : 7.2 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.5% Agar gel

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>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	≥70%
2.	<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	good-luxuriant	≥70%
3.	<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant	≥70%
4.	<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant	≥70%

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

Test Procedure

Refer appropriate references for standard test procedures.

Results

Refer appropriate references and 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 : Dextrose Peptone Agar

Product Code : DM082

Available Pack sizes : 500gm

References

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
2. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.
3. 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.
4. Collins FM (1996). Pasteurella, and Francisella. In: Barron's Medical Microbiology (Barron S et al., eds.) 4th ed., Univ of Texas Medical Branch.

Further Information

For further information please contact your local MICROMASTER Representative.



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