

PRODUCT SPECIFICATION SHEET

Nutrient Broth w/ 1% Peptone (DM185)

Intended Use

Nutrient Broth w/ 1% Peptone (DM185) is used as a sterility testing medium for aerobes.

Product Summary and Explanation

Nutrient Broth with 1% Peptone is more nutritive as compared to Nutrient Broth, as the former has almost double concentration of the nitrogen sources.⁽¹⁾ As per standard pharmacopoeia, Nutrient Broth with 1% Peptone can be used as a sterility testing medium for aerobes against Nutrient Broth recommended for microbial limit tests.⁽²⁾ Nutrient Broth w/ 1% Peptone is a nutritionally rich medium that facilitates the growth of very low inocula, when with fastidious microorganisms. For the cultivation of anaerobic organisms this broth can also be used as the suspending medium for cooked meat granules.

Principles of the Procedure

Nutrient Broth w/ 1% Peptone supports the growth of non-fastidious organisms *Bacillus subtilis* and *Staphylococcus aureus* due to its content of peptone and beef extract which are nutritionally rich in supplying essential nitrogen and growth factors, vitamins and also some trace factors. Sodium chloride maintains osmotic equilibrium of the medium.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Beef extract	10.00
Sodium chloride	5.00
Final pH : 7.4 ± 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 25 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. Dispense as desired.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Light yellow coloured clear solution in tubes
Reaction of 2.5% Solution	pH : 7.4 ± 0.2 at 25°C
Gel Strength	Not Applicable

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
1.	<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant
2.	<i>Enterobacter aerogenes</i> ATCC 13048	50-100	good-luxuriant
3.	<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	good-luxuriant
4.	<i>Salmonella Typhimurium</i> ATCC 14028	50-100	good-luxuriant
5.	<i>Escherichia coli</i> ATCC 8739	50-100	good-luxuriant
6.	<i>Escherichia coli</i> NCTC 9002	50-100	good-luxuriant
7.	<i>Staphylococcus aureus</i> ATCC 6538	50-100	good-luxuriant
8.	<i>Salmonella Abony</i> NCTC 6017	50-100	good-luxuriant

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



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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 : Nutrient Broth w/ 1% Peptone

Product Code : DM185

Available Pack sizes : 100gm / 500gm

References

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
2. IP: Indian Pharmacopoeia, 1996, Govt. of India, 1996, The Controller of Publication, Delhi.

Further Information

For further information please contact your local MICROMASTER Representative.



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