



## PRODUCT SPECIFICATION SHEET

### Nutrient Agar 1.5% (DM181)

#### Intended Use

Nutrient Agar 1.5% (DM181) is recommended for cultivation of bacteria not requiring a highly nutritious medium, can be enriched with blood, ascitic fluid or other enriching fluids.

#### Product Summary and Explanation

Nutrient Agar 1.5% is a slightly alkaline general-purpose medium. This medium is a modification of Nutrient Agar recommended for cultivation and maintenance of non-fastidious microorganisms by APHA.<sup>(1)</sup> With slight modification the ISO Committee<sup>(2)</sup> has recently recommended the medium for sub-cultivation of *Pseudomonas* species isolated from meat and meat products. It can also be used as a base for enrichment with blood, ascitic fluid or other supplements for cultivating fastidious microorganisms, since the medium contains 0.8% sodium chloride.<sup>(2)</sup>

#### Principles of the Procedure

Nutrient Agar 1.5% contains peptic digest of animal tissue and beef extract which provides nitrogen, carbohydrates, vitamins and salts. Sodium chloride maintains the osmotic balance so that red blood cells will not rupture when blood is added as supplement. Nutrient Agar 1.5% may be used for blood culturing work after the addition of sterile 5-10% v/v defibrinated blood.

#### Formula / Liter

Ingredients	Gms / Liter
Beef extract	3.00
Peptic digest of animal tissue	5.00
Sodium chloride	8.00
Agar	15.00
Final pH : 7.3 ± 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 31 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.
4. If desired, it can be appropriately enriched with sterile blood, ascetic fluid or serum after cooling to 45-50°C.
5. Mix well and pour into sterile Petri plates.

#### Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow coloured clear gel forms in Petri plates. With the addition of blood Cherry red coloured opaque gel forms in Petri plates
Reaction of 3.1% Solution	pH : 7.3 ± 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.	Organisms	Results to be achieved
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No.		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%

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 : Nutrient Agar 1.5%

Product Code : DM181

Available Pack sizes : 100gm / 500gm

### References

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> Ed., APHA, Washington, D.C.
2. International Organization for Standardization (ISO), 1995, Draft ISO/DIS 9308-1.

### Further Information

For further information please contact your local MICROMASTER Representative.



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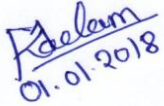
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Prepared By	Checked By	Approved By
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