

## Nutrient Agar No. 2, Granulated

GM1269

Nutrient Agar No. 2, granulated is used as a general purpose culture medium.

### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Beef extract	10.000
Sodium chloride	5.000
Agar	15.000
Final pH ( at 25°C)	7.2±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates or as desired.

### Principle And Interpretation

Nutrient Media are general propose media used for the examination of water and dairy products according to Standard Methods for the Examination of Water and Waste water (1) and Dairy Products (2). Nutrient Agar No. 2 can be used for the microbiological analysis of water as per Czech Standards. It can also be used for sterility testing of aerobes and also for maintenance of subcultures (3).

Beef extract and peptic digest of animal tissue provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients to the bacteria. Sodium chloride maintains osmotic equilibrium of the medium.

### Quality Control

#### Appearance

Cream to yellow coloured granular medium

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light yellow to amber coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.2±0.2

#### pH

7.00-7.40

#### Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery
<b>Cultural Response</b>			
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	>=70%
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	luxuriant	>=70%
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	luxuriant	>=70%
<i>Salmonella</i> Typhimurium ATCC 14028	50-100	luxuriant	>=70%

### Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

## Reference

1. Rice E.W., Baird R.B., Eaton A. D.and Clesceri L. S (Eds.), 2012, Standard Methods for the Examination of Water and Wastewater, 22nd Ed., APHA, Washington, D.C.
2. Wehr H.M and Frank J.H., 2004, Standard Methods for the Examination of Dairy Products,17th ED., APHA Inc., Washington, D.C.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

Revision : 00 / 2014



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