

# NUTRIENT AGAR

## INTENDED USE

Remel Nutrient Agar is a solid medium recommended for use in qualitative procedures as a general purpose culture medium for the cultivation and maintenance of a wide variety of microorganisms.

## SUMMARY AND EXPLANATION

In 1917, the American Public Health Association (APHA) published the formulation for a medium which is now known as Nutrient Agar.<sup>1</sup> This formulation was developed due to the need for a standardized medium for use in the examination of water, wastewater, dairy products, and various foods. Nutrient Agar is still specified in current compendia of methods for the microbiological examination of water, wastewater, foods, and other materials.<sup>2-4</sup> Nutrient Agar is also used for the recovery of nonfastidious microorganisms and for the cultivation and maintenance of stock cultures.

## PRINCIPLE

Beef extract provides carbohydrates, vitamins, nitrogen compounds, and salts. Gelatin peptone supplies nutrients in the form of amino acids and peptides. In combination, beef extract and gelatin peptone have been found to be as nutritious as meat infusion. Agar is a solidifying agent.

## REAGENTS (CLASSICAL FORMULA)\*

Gelatin Peptone .....	5.0 g	Agar .....	15.0 g
Beef Extract.....	3.0 g	Demineralized Water .....	1000.0 ml

pH 6.8 ± 0.2 @ 25°C

\*Adjusted as required to meet performance standards.

## PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

## PREPARATION OF DEHYDRATED CULTURE MEDIUM

1. Suspend 23 g of medium in 1000 ml of demineralized water.
2. Heat to boiling with agitation to completely dissolve.
3. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
4. Dispense into appropriate containers.

## PROCEDURE

1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

## QUALITY CONTROL

Each lot number of Nutrient Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

## CONTROL

*Bacillus subtilis* ATCC® 6633  
*Escherichia coli* ATCC® 25922  
*Pseudomonas aeruginosa* ATCC® 27853  
*Staphylococcus aureus* ATCC® 25923

## INCUBATION

Aerobic, 18-24 h @ 33-37°C  
Aerobic, 18-24 h @ 33-37°C  
Aerobic, 18-24 h @ 33-37°C  
Aerobic, 18-24 h @ 33-37°C

## RESULTS

Growth  
Growth  
Growth  
Growth

## BIBLIOGRAPHY

1. American Public Health Association. 1917. Standard Methods of Water Analysis. 3<sup>rd</sup> ed. APHA, Washington, D.C.
2. Eaton, A.D., L.S. Clesceri, E.W. Rice, and A.E. Greenberg. 2005. Standard Methods for the Examination of Water and Wastewater. 21<sup>st</sup> ed. APHA, Washington, D.C.
3. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4<sup>th</sup> ed. APHA, Washington, D.C.
4. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17<sup>th</sup> ed. APHA, Washington, D.C.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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