

# Nutrient Agar Dev Regulations

Cat. 1314

For the enumeration of microorganisms in water and other materials.

## Practical information

Applications	Categories
Non selective enumeration	General use

Industry: Water / Dairy products

## Principles and uses

Nutrient Agar is a general purpose medium, not selective but suitable for the cultivation of a wide variety of microorganisms.

It is recommended by the German Standard Methods (Deutsche Einheitsverfahren), the German Drinking Water Regulations (Trinkwasser-Verordnung) (1990) and the German Regulation For Food Examination (LMBG).

The American Public Health Association (APHA) suggested this standard culture medium for use in bacterial processing for water analysis. In Standard Methods of Water Analysis and Standard Methods of Milk Analysis, the APHA advocated the use of dehydrated media for the bacterial examination of water and milk.

Meat peptone and beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Bacteriological agar is the solidifying agent.

Since this medium contains sodium chloride it can be used as a base for enrichment with blood or other supplements for cultivating fastidious microorganisms.

## Formula in g/L

Bacteriological agar	18	Beef extract	10
Meat peptone	10	Sodium chloride	5

## Preparation

Suspend 43 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45 °C, mix well and dispense into plates.

## Instructions for use

Inoculate medium with the test sample and incubate at 20±2 °C or 35±1 °C for 44±4 hours.

## Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7,3±0,2

## Microbiological test

Inoculation conditions: (20±2 °C or 35±1 °C / 44±4 h).

Microorganisms	Specification
Enterococcus faecalis ATCC 11700	Good growth
Proteus vulgaris ATCC 13315	Good growth

Klebsiella pneumoniae ATCC 13883  
Salmonella typhimurium ATCC 14028  
Escherichia coli ATCC 25922

Good growth  
Good growth  
Good growth

## Storage

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Temp. Min.: 2 °C  
Temp. Max.: 25 °C

## Bibliography

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German Standard Methods (Deutsche Einheitsverfahren), the German Drinking Water Regulations (Trinkwasser-Verordnung) (1990) and the German regulation for food examination (LMBG).

American Public Health Association. 1923. Standard methods of milk analysis, 4th. Ed. American Public Health Association, Washington, D.C.

Association of Official Analytical Chemists. 1995. Official methods of analysis of AOAC International, 16th ed. AOAC International, Arlington, VA