



## Standard Nutrient Agar No. 1

M1210

Standard Nutrient Agar No. 1 is used for cultivation of fastidious bacteria.

### Composition\*\*

Ingredients	Gms / Litre
Peptone, special	15.000
Yeast extract	3.000
Sodium chloride	6.000
Dextrose	1.000
Agar	12.000
Final pH ( at 25°C)	7.5±0.2

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

### Directions

Suspend 37 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. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Nutrient media are basic culture media used for culturing maintaining microorganisms (1), and to check culture purity prior to biochemical or serological testing.

Standard Nutrient Agar No. 1 is used for the isolation and enumeration of bacteria. Standard Nutrient Agar No. 1 can be used as a culture media base, when supplemented with blood, ascetic fluids, serum or egg yolk etc which makes it suitable for the cultivation of relatively fastidious organisms (2). The media can be used for cultivation of Streptococci, Pneumococci and *Erysipelothrix* species.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.2% Agar gel.

#### Colour and Clarity of prepared medium

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

#### Reaction

Reaction of 3.7% w/v aqueous solution at 25°C. pH : 7.5±0.2

#### pH

7.30-7.70

#### Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery
<b>Cultural Response</b>			
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	≥70%
<i>Erysipelothrix rhusiopathiae</i> ATCC 19414	50-100	good-luxuriant	
<i>Listeria monocytogenes</i> ATCC 19111	50-100	good-luxuriant	≥70%
<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant	≥70%
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	good-luxuriant	≥70%

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<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant	$\geq 70\%$
<i>Shigella flexneri</i> ATCC 12022	50-100	good-luxuriant	$\geq 70\%$

### Storage and Shelf Life

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

### Reference

- 1.Lapage S., Shelton J. and Mitchell J., 1970, Methods in Microbiology, Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
- 2.MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore

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