

## Standard Nutrient Agar

### Intended Use

Universal culture media for cultivating and enumeration of less fastidious microorganisms.

### Typical Composition (g/litre)

Beef extract 10.0; Peptic digest of lean meat from 500.0; Sodium chloride 5.0; Agar 20.0

### Mode of Action

Standard Nutrient Agar is formulated as per the recommendation of APHA as a general-purpose medium for the cultivation of non-fastidious organisms from water and wastewater, dairy and food products. Peptic digest of lean meat provides the amino acids and large chain peptides. Beef extract provides water-soluble substances like carbohydrates, vitamins, organic nitrogen compounds and salts. Sodium chloride maintains osmotic equilibrium.

### Preparation

Suspend 45 grams in 1 Litre distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well before pouring in sterile Petri plates.

### Storage

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

### Experimental Procedure and Evaluation

Depend on the purpose for which the media are used.

Incubation: 24 h at 35 °C aerobically

### Quality Control

<b>Organism</b>	<b>Inoculum</b>	<b>Growth</b>	<b>Recovery</b>
Escherichia coli ATCC 25922	50 - 100	Good-Luxuriant	>=70 %
Staphylococcus aureus ATCC 25923	50 - 100	Good-Luxuriant	>=70 %
Pseudomonas aeruginosa ATCC 27853	50 - 100	Good-Luxuriant	>=70 %
Streptococcus pneumoniae ATCC 6303	50 - 100	Good-Luxuriant	>=70 %
Salmonella Typhi ATCC 6539	50 - 100	Good-Luxuriant	>=70 %

## Reference

1. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
2. Speck M. (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.
3. Pelczar, Chan and Kreig, 1986, Microbiology, 5th ed., McGraw-Hill Book Company, New York.
4. American Public Health Association: Compendium of methods for the microbiological examination of foods. 3 rd ed., 1992.