Nutrient Agar

Intended Use
Nutrient Agar is used for cultivation of a wide variety of less fastidious microorganisms which can be enriched by the addition of blood or other biological fluids.

Summary
Nutrient Agar is a basic culture medium used to subculture organisms for maintenance purpose or to check the purity of sub-cultures from isolation plates prior to biochemical or serological testing. It is used for the cultivation and enumeration of organisms in water, sewage, faeces and other materials, which are not particularly fastidious. Nutrient Agar is suitable for teaching purpose and maintenance of cultures, where a prolonged survival of organisms at an ambient temperature is required without risk of the overgrowth that can occur with a more nutritious medium. Nutrient Agar is a basic non-selective culture medium used for the routine cultivation of microorganisms. Nutrient Agar can be used for the cultivation of more exacting bacteria by incorporating biological fluids like horse or sheep blood, serum, ascetic fluid, egg yolk, etc. Nutrient Agar is included in the Bacteriological Analytical Manual for food testing.

Principle
Peptone, beef extract and yeast extract provide water-soluble substances including carbohydrates, vitamins, organic nitrogen compounds and salts. Peptone is the principle source of organic nitrogen, particularly amino acids and long chained peptides. Sodium chloride maintains osmotic balance and agar is the solidifying agent.

Formula*

Ingredients	**g/L**
Peptone	5.0
Sodium Chloride	5.0
Beef Extract	1.5
Yeast Extract	1.5
Agar	15.0
Final pH (at 25°C)	7.4 ± 0.2

*Adjusted to suit performance parameters.

Directions
1. Loosen the cap.
2. Melt the medium completely in a water bath at 100°C. Do not remove the cap of the bottle while melting.
3. Cool to 45°C-50°C, mix well and pour into presterile petriplate.

Quality Control
Appearance: Light amber coloured, slightly opalescent gel.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/BP/JP and growth is observed after an incubation at 30°C-35°C for 18 to 48 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

Organism (ATCC)	**Growth**
Escherichia coli (8739)	Good
Staphylococcus aureus subsp. *aureus* (6538)	Good
Pseudomonas aeruginosa (9027)	Good
Bacillus spizizenii (6633)	Good
Enterococcus faecalis (29212)	Good

Note: For good growth - Growth obtained on the test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.
Inoculum cfu for good growth is 10 - 100.

Remarks

1. Do not use media bottles that exhibit any damage, cracks, microbial contamination, discoloration, drying or other sign of deterioration.
2. Ensure that the temperature of water bath is at 100°C so that the medium melts completely. Cooler water baths give rise to lumpy, uneven medium.
3. Before pouring into sterile petriplates, gently swirl the bottle to check whether the entire contents are properly mixed and melted.
4. Good laboratory practices and hazard precautions must be observed at all times.
5. After use media containers, prepared plates, sample, sample containers and other contaminated materials must be sterilized or incinerated before discarding.

Storage and Stability

1. Store the ready to use Nutrient Agar at 15°C-25°C in a cool, dry place away from light.
2. Stability of the kit is as per expiry date mentioned on the label.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. A, AOAC, International, Gaithersburg, Md.
2. National Committee for Clinical Laboratory Standards, 2000, Approved Standard:M7-A5. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria that grow aerobically, 5th Ed., NCCLS, Wayne, Pa.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
203140140100	Bottle Media	100 mL
203140140250	Bottle Media	6 x 250 mL