

Technical Information

Nutrient Agar No. 2

Product Code: DM 2269S

Application: - Nutrient Agar No. 2 is used as a general purpose culture media. It is in accordance with BIS under the specification IS: 5887 (Part-I) 1976 reaffirmed 1986, IS: 5887 (Part-II) 1976 and IS: 5887 (Part-V) 1976 reaffirmed 1986.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Meat extract	10.000
Sodium chloride	5.000
Agar	15.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Nutrient Agar is a general purpose medium used for the examination of water and dairy products as per the Standard Methods for the Examination of Water and Waste water ⁽¹⁾ and Dairy Products ⁽²⁾. This media No. 2 is also used in microbiological analysis of water by Czech Standards, and can be used for cultivating several less fastidious microorganisms. BIS recommend the use of this media for the cultivation of *Escherichia coli*, *Staphylococcus aureus* and *Vibrio* from food samples ⁽³⁻⁵⁾. Nutrient Agar with 0.8% sodium chloride and pH 6.0 is used for cultivation of bacteria requiring slightly acidic conditions. The media can be used as enriched media after addition of 10% blood or other biological fluids like ascetic fluid, serum etc.

Meat extract and peptic digest of animal tissue provide the necessary nitrogen compound, carbon, vitamins and also some trace ingredients to nonfastidious organism like *Bacillus subtilis* and *Staphylococcus aureus*. Sodium chloride maintains osmotic equilibrium of the medium.

Methodology

Suspend 40 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour in sterile Petri plates.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light yellow clear to slightly opalescent gel forms in Petri plates

Reaction Reaction of 4.0% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH Range 7.30-7.70

Cultural Response/ characteristics

DM 2269S: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery
Enterobacter aerogenes ATCC 13048	50-100	luxuriant	>=70%
Escherichia coli ATCC 25922	50-100	luxuriant	>=70%
Enterococcus faecalis ATCC 29212	50-100	luxuriant	>=70%
Klebsiella pneumoniae ATCC 13883	50-100	luxuriant	>=70%
Pseudomonas aeruginosa ATCC 10145	50-100	luxuriant	>=70%
Staphylococcus aureus ATCC 25923	50-100	luxuriant	>=70%
Salmonella Typhimurium ATCC 14028	50-100	luxuriant	>=70%

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

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. American Public Health Association, 1978, Standard Methods for the Examination of Dairy Products, 14th ed., APHA, Inc., Washington, D.C.
3. Bureau of Indian Standards IS: 5887 (Part-I) 1976, reaffirmed 1986.
4. Bureau of Indian Standards IS: 5887 (Part-II) 1976, Second Reprint December 1994.
5. Bureau of Indian Standards IS: 5887 (Part-V) 1976, reaffirmed 1986.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.

