

Technical Information

Nutrient Agar, pH 6.0 with 0.8% NaCl

Product Code: DM 1090

Application: Nutrient Agar, pH 6.0 with 0.8% NaCl is used as a general purpose culture media.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Beef extract	3.000
Sodium chloride	8.000
Agar	15.000
Final pH (at 25°C)	6.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

According to Standard Methods for the Examination of Water and Waste water ⁽¹⁾ and Dairy Products ⁽²⁾ Nutrient Agar, pH 6.0 with 0.8% NaCl is general purpose media used for the examination of water and dairy products. This media a modification of Nutrient Agar w/ 0.8 % NaCl and recommended by APHA ⁽³⁾. In the former, the pH of the medium is adjusted to 6.0 to allow the growth of organisms requiring slightly acidic pH. Since the medium contains 0.8 % sodium chloride, it can be used as a base for enrichment with blood or ascetic fluid or other supplements for cultivation of fastidious microorganisms. Sodium chloride maintains the osmotic balance so that red blood cells do not rupture when blood is added as supplement ⁽¹⁾.

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

Methodology

Suspend 31 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 into 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 to amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.1% w/v aqueous solution at 25°C. pH : 6.0±0.2

pH Range 5.80-6.20

Cultural Response/ characteristics

DM 1090: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Bacillus subtilis ATCC 6633	50-100	good	50-70%
Candida albi cans ATCC 10231	50-100	luxuriant	>=70%
Staphylococcus aureus ATCC 25923	50-100	good	50-70%



Dehydrated Culture Media
Bases / Media Supplements

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. Clesceri L. S, Greenberg A. E. and Eaton A. D., (Eds.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th 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. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.

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