

Technical Information

Dextrose Peptone Broth

Product Code: DM 1650

Application: - Dextrose Peptone Broth is recommended for the cultivation of fastidious organisms, enumeration of thermophilic bacteria from canned foods and for routine sterility testing.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	20.000
Dextrose	10.000
Sodium chloride	5.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Dextrose Peptone Broth is formulated by Williams ⁽¹⁾ for the cultivation of microorganisms that are fastidious, or present in small numbers and also for the enumeration of thermophilic bacteria responsible for flat-sour spoilage of canned foods. This medium is recommended by AOAC for the routine cultivation purposes ⁽²⁾. Dextrose is the readily available energy source for most of the organisms. Dextrose Peptone Broth can also be used for routine sterility testing. Supplementation of the medium with blood provides additional nutrients.

Methodology

Suspend 35 grams of powder media in 1000 ml distilled water. Shake well and heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C. Mix well before pouring into sterile Petri plates.

Quality Control

Physical Appearance

Cream to light yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent solution in tubes

Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH Range 7.00-7.40

Cultural Response/Characteristics

DM1650: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	luxuriant



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: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Williams O.B., 1936, Food Res., 1(3):217.
2. Association of Official Analytical Chemists, 1978, Bacteriological Analytical Manual, 5th ed., AOAC, Washington, D.C.

Disclaimer :

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