Standard Infusion Agar

M883

Standard Infusion Agar is a nutritive medium used for mass cultivation of organisms for vaccine or toxin production.

Composition**

Ingredients	Gms / Litre
Peptone	10.000
HM infusion B from #	500.000
Sodium chloride	5.000
Agar	25.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Equivalent to Beef infusion from

Directions

Suspend 50 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Coo to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

The principles of cultivation of bacteria were laid down in the late 1870's by Robert Koch. Since that time bacteriologists could study systematically the diseases caused by bacteria, isolate the causative agents in pure culture and make themselves familiar with their nature. With the aid of the culture technique they could produce therapeutic sera and prophylactic vaccines. Standard Infusion Agar supports luxuriant growth of a variety of bacteria. This medium is thus recommended for large-scale cultivation of bacteria for the purpose of vaccine and toxin production. Standard Infusion Agar has composition similar to HM Peptone B Agar (ATCC Medium 225) (1). Standard Infusion Broth, having a composition similar to Standard Infusion Agar is recommended as highly nutritious media for the cultivation of wide variety of microorganisms (2).

Peptone and HM infusion B from provide nitrogen and carbon source, long chain amino acids sulphur, vitamins and other growth nutrients for luxuriant growth of organisms. Sodium chloride maintains the osmotic equilibrium.

Type of specimen

Clinical samples ; Food and dairy samples ; Water samples

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (5,6,7).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (8).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidleines should be followed while handling clincal specimens. Saftey guidelines may be referred in individual safety data sheets

Limitations :

This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 2.5% Agar gel.

Colour and Clarity of prepared medium
Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 5.0% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH
7.30-7.70

Cultural Response
M883: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Escherichia coli ATCC 25922 (00013)*	50-100	luxuriant	>=70%
Pseudomonas aeruginosa ATCC 27853 (00025)*	50-100	luxuriant	>=70%
Salmonella Typhi ATCC 6539	50-100	luxuriant	>=70%
Staphylococcus aureus ATCC 25923 (00034)*	50-100	luxuriant	>=70%

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

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