Hottinger Broth

M1425

Hottinger Broth is used for the cultivation of less fastidious microorganisms and determination of indole in accordance with USSR State Pharmacopoeia.

Composition**

Ingredients	Gms / Litre
Fish peptone	20.000
Yeast extract	2.000
Tryptophan	1.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 23.0 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Hottinger Broth is used for cultivation of less fastidious microorganisms and determination of indole as per USSR State Pharmacopeia (1).

Fish peptone and yeast extract provides the nitrogenous source and essential nutrients for growth of organisms. The production of indole from tryptophan is a diagnostic test used for identifying enteric bacteria. After incubation, indole can be identified by a red dye complex reaction with one of several reagents eg. Kovac's Reagent which consists of amyl alcohol, dimethylaminobenzaldehyde and concentrated hydrochloric acid (2).

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light amber coloured clear solution

Reaction
Reaction of 2.3% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH
7.20-7.60

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

Cultural Response

Organism	Growth	Indole production
Cultural Response		
Escherichia coli ATCC 25922	good	Positive reaction,red ring at the interface of the medium
Pseudomonas aeruginosa ATCC 27853	good	Negative reaction,no colour development/ cloudy ring

Staphylococcus aureus ATCC 25923	good	Negative reaction,no colour development/ cloudy ring
Streptococcus pyogenes ATCC 19615	good	Negative reaction,no colour development/ cloudy ring

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8 °C. Use before expiry date on label.

Reference

1. State Pharmacopoeia of USSR.
2. Harrigar W.F and McCarran M.E (1966) Laboratory Methods in Microbiology Academic Press 53.

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