



Hottinger Broth

M1425

Intended Use:

Recommended for 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 purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired. 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 Pharmacopoeia (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).

Type of specimen

Pharmaceutical samples

Specimen Collection and Handling:

For pharmaceutical samples, follow appropriate techniques for sample collection and processing as per guidelines (1). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

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 guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.

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

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.

Organism	Growth	Indole production
<i>Escherichia coli</i> ATCC 25922 (00013*)	good	Positive reaction, red ring at the interface of the medium
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	good	Negative reaction, no colour development/ cloudy ring
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	good	Negative reaction, no colour development/ cloudy ring
<i>Streptococcus pyogenes</i> ATCC 19615	good	Negative reaction, no colour development/ cloudy ring

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order 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. 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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. State Pharmacopoeia of USSR.
2. Harrigar W.F and McCarran M.E (1966) Laboratory Methods in Microbiology Academic Press 53.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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Disclaimer :

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