



Esculin Fermentation Broth

Intended Use:

Recommended for cultivation and differentiation of bacteria which hydrolyze esculin. **Composition****

Ingredients	Gms / Litre
HM infusion B from #	500.000
Tryptose	10.000
Sodium chloride	5.000
Esculin	1.000
Agar	1.000
Final pH (at 25°C)	7.0 ± 0.2
**Formula adjusted, standardized to suit performance parameters	

Equivalent to Beef heart, infusion from

Directions

Suspend 34.50 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. *Note : Esculin hydolysis is observed on addition of Ferric citrate 0.1 gm/litre*

Principle And Interpretation

Esculin Fermentation Broth is used for cultivation and differentiation of bacteria which hydrolyze esculin (3). Tryptose and HM infusion B provide amino acids or other nitrogenous substances that support bacterial growth. Sodium chloride maintains osmotic equilibrium. Esculin is a glycoside incorporated as a differential agent to facilitate the identification of various organisms. Hydrolysis of esculin yields esculetin and dextrose.

Type of specimen

Isolated Microorganism

Specimen Collection and Handling

For samples follow appropriate techniques for handling specimens as per established guidelines (1,2). 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. Pure isolated colonies must be used for testing esculin hydrolysis .

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

Coloured and Clarity of prepared medium

Amber coloured clear to slightly opalescent with purplish tinge

Reaction

Reaction of 3.45% w/v aqueous solution at 25°C. pH : 7.0 \pm 0.2

M1382

pН

6.80-7.20

Cultural Response

Cultural characteristics observed after an incubation at 35- 37°C for 18- 24 hours.

Organism	Growth	Esculin
		hydrolysis
Escherichia coli ATCC	good	Negative
25922 (00013*)		reaction
Enterococcus faecalis AT	CC luxuriant	Positive
29212 (00087*)		reaction,
		blackening of
		medium
Enterococcus faecium AT	CC luxuriant	Positive
19434 (00010*)		reaction,
		blackening of
		medium
Yersinia enterocolitica	luxuriant	Positive
ATCC 27729		reaction,
		blackening of
		medium

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 (1,2).

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

2. 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.

3. Shigei 1992, In Isenberg (ed.); Clinical microbiology procedures handbook, Vol-1, American Society for Microbiology, Washington, D.C.

Revision : 03/2020

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia[™] publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia[™] Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

HiMedia Laboratories Pvt. Ltd. Reg.office : 23, Vadhani Ind.Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6116 9797 Corporate office : A-516,Swastik Disha Business Park,Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6147 1919 Email: techhelp@himedialabs.com Website: www.himedialabs.com