Drigalski Selective Agar

M1761

Intended Use:

For the selective isolation of *Enterobacteria* from urine, stool and other clinical samples on the basis of their ability to ferment lactose.

Composition**

Ingredients	g / L
Peptone	15.000
Yeast Extract	3.000
HM extract#	3.000
Sodium deoxycholate	1.000
Sodium thiosulphate	1.000
Lactose	15.000
Crystal violet	0.005
Bromothymol blue	0.080
Agar	11.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

#- Equivalent to Meat extract

Directions

Suspend 49.09 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Drigalski Selective Agar, is formulated by Ewing (1), based on the medium developed by Drigalski and Conrad (2) for the detection of enteric pathogens.

The medium contains lactose as the source of carbon and fermentable carbohydrate. Peptone, yeast extract and HM extract provide nitrogenous nutrients to the organisms. Crystal violet and sodium deoxycholate inhibit the development of gram positive bacteria. Bromothymol blue is the pH indicator in the medium. Lactose fomenters produce acid and thus change the colour to yellow with yellow zones. Lactose non-fermenters develop blue colonies on the medium due to alkalization. Non lactose fermenting gram-negative (enteric) pathogens (*Salmonella, Shigella, Proteus, Pseudomonas*) form blue to green colonies whereas lactose fermenting coliform organisms (*E.coli, Klebsiella , Enterobacter*) form yellow colonies due to acid production and decrease in pH.

Type of specimen

Clinical samples - Urine, stool

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional 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 guidelines should be followed while handling clinical 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. Further biochemical and serological tests must be carried out for further identification.

2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

3. Other biochemical and serological testing must be performed in conjunction for confirmation.

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

Light yellow to greenish yellow homogeneous free flowing powder, may have slight dye particles

Gelling

Firm, comparable with 1.1% Agar gel.

Colour and Clarity of prepared medium

Green coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 4.91% w/v aqueous solution at 25°C. pH : 7.4±0.2

Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Klebsiella pneumoniae ATCC 13883 (00097*)	50-100	good-luxuriant	>=50%	yellow, mucoid
Escherichia coli ATCC 25922 (00013*)	50-100	luxuriant	>=50%	yellow
Salmonella Typhi ATCC 6539	50-100	luxuriant	>=50%	blue to green
Shigella flexneri ATCC 12022 (00126*)	50-100	luxuriant	>=50%	blue to green
Pseudomonas aeruginosa ATCC 27853 (00025*)	50-100	good	>=50%	blue-green

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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 clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. Ewing, 1986, Edwards and Ewing's identifications of the Enterobacteriaceae, 4th Ed. Elsevier Science Piblishing CO., Inc.New York.

2. Drigalski V. and Conrad H., 1902, Z. Hyg. Infektionskr., 39:283.

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.

Revision : 03/2024

HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

IVD *In vitro* diagnostic medical device

30°C
10°C Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE CE Marking

Do not use if package is damaged

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.