



## HiDip™ CLED-MUG Mac Medium

HD005

### Intended Use:

Recommended for direct *Escherichia coli* identification under UV light (366 nm).

### Composition\*\*

Ingredients	g / L
<b>C.L.E.D. Agar w/Bromo Thymol Blue</b>	
Peptone	4.000
Tryptone	4.000
HM Peptone B#	3.000
Lactose	10.000
L-Cystine	0.128
Bromothymol blue	0.020
Agar	15.000
Final pH ( at 25°C)	7.3±0.2

\*\*Formula adjusted, standardized to suit performance parameters

#- Equivalnet to Beef extract

### MUG MacConkey Agar

Peptone	20.000
Lactose	10.000
Bile salts mixture	1.500
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.001
4-Methylumbelliferyl β-D-glucuronide (MUG)	0.100
Agar	15.000
Final pH ( at 25°C)	7.1±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

1.Surfaces : Loosen cap and remove HiDip™ slide from container taking care not to touch agar surfaces. Check for dehydration or contamination. Gently lower the slides and press agar to touch the test surface by bending the scull around the hinge line. Apply even and firm pressure for 15-20 seconds. Take care not to smudge agar over the test surface. Repeat procedure using the second agar surface on an area adjacent to the initial test side. Return the slide to the container and close tightly. Incubate in an up right position at indicated temprature.

2.Liquids: Loosen cap and remove the HiDip™ slide from container. Check for dehydration or contamination. Dip slide into test fluid for upto 15-20 seconds so that agar surface becomes totally covered. (In case of inadequate liquid sample availability, pour sample over the surface of the slide). Allow to drain. Tab it gently to remove excess fluid from surface. Return the slide to the container and close tightly. Incubate in an upright position at indicated temprature. Label the container for sample number,source, date and time etc. for reference.

### Principle And Interpretation

C.L.E.D.Agar is recommended for isolation, enumeration and identification of urinary pathogens on the basis of lactose fermentation.

MUG MacConkey Agar is used for selective isolation and detection of lactose fermenting coliform organisms by flurogenic procedure. The medium helps to detect the presence of an enzyme β-glucuronidase and thereby rapidly identifying *E.coli* in mixed clinical specimens. MUG is cleaved by the enzyme to release an end product 4- methylumbelliferone which produces a visible greenish-blue fluorescence under long wave ultra-violet light. Growth indicators aids in easier observation and enumeration of colonies.

**Please refer disclaimer Overleaf.**

## Type of specimen

Clinical sample : Urine; Food and dairy samples, Water samples.

## Specimen Collection and Handling

Refer Directions.

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

## Limitations:

C.L.E.D.Agar

1. This medium is recommended for urine infection. Low urine count may be a result of antibiotic therapy, low pH of urine.
- 2.Recovery depends on the urine count.
- 3.Inoculate the medium immediately after urine collection.

MacConkey Agar:

1. The plates are exposed to ammonia fumes to increase fluorescence as suggested by Freir and Hartman (1).

## 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

The HiDip™ slide containing combination of sterile CLED Agar and MUG- MacConkey Agar Medium on separate individual surfaces.

### Colour

#### Colour of CLED Agar

Green coloured gel.

#### Colour of MUG-MacConkey Agar

Red coloured gel with purplish tinge

### Quantity of medium

2.5ml of medium per surface

### Sterility Check :

Passes release criteria

### pH of CLED Agar

pH Range : 7.10- 7.50

### pH of MUG-MacConkey Agar

pH Range : 6.90-7.30

## Cultural Response

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

Organism	Growth	Colour of colony	Fluorescence under UV
<b>CLED Agar</b>			
<i>Escherichia coli</i> ATCC 25922 (00013*)	good-luxuriant	yellow, opaque, centre slightly deeper yellow	-
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	good-luxuriant	slight yellowish or greenish	-
## <i>Proteus hauseri</i> ATCC 13315	good-luxuriant	blue	-
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	good-luxuriant	deep yellow	-

<i>Salmonella</i> Typhi ATCC 6539	good-luxuriant	bluish	-
<i>Klebsiella pneumoniae</i> ATCC 13883 (00097*)	good-luxuriant	yellow to whitish blue	-
<b>MUG-MacConkey Agar</b>			
<i>Escherichia coli</i> ATCC 25922 (00013*)	luxuriant	-	positive
# <i>Klebsiella aerogenes</i> ATCC 13048 (00175*)	luxuriant	-	negative

Key :- \* Corresponding WDCM numbers  
## Formerly known as *Proteus vulgaris*

# Formerly known as *Enterobacter aerogenes*

## Storage and Shelf Life

On receipt store between 15-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## Disposal

Used HiDip™ slides should be handled carefully, as it contains live microorganisms. These slides can be best disposed off either by or by immersing in a suitable disinfectant solution (i.e. dettol, phenyl etc.) over night or by autoclaving them after loosening the cap.

## Reference

- Freir T. A. and Hartman P. A. (1987) Appl. Env. Microbiol. 53. 1246-1250.

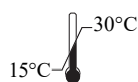
Revision : 01/2024



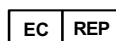
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**IVD** *In vitro* diagnostic  
medical device



**Storage temperature**



CEpartner4U, Esdoornlaan 13,  
3951DB Maarn, NL  
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**CE** Marking



**Do not use if  
package is damaged**

### Disclaimer :

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