HiDip Cled-MUG Mac Medium

HD005

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

Composition**

Ingredients	Gms / Litre
C.L.E.D. Agar w/ Bromo thymol blue	-
Peptic digest of animal tissue	20.000
Beef extract	3.000
Casein enzymic hydrolysate	4.000
Lactose	10.000
L-Cystine	0.128
Bromothymol blue	0.020
Agar	15.000
MUG MacConkey Agar	-
Bile salts mixture	1.500
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.001
4-Methylumbelliferyl beta-D-Glucuronide	0.100

**Formula adjusted, standardized to suit performance parameters

Directions

Surfaces : Loosen cap and remove the HiDip slide from container. Aseptically remove the protective plastic cover from slide by taking care not to touch agar surfaces. Check for dehydration or contamination. Gently lower the slide and press agar to touch the test surface by bending the scull around the hinge line. Apply even and firm pressure for few 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 temperature.

Liquids : Loosen cap and remove the HiDip slide from the container. Aseptically remove the protective plastic cover from slide by taking care not to touch agar surfaces. Check for dehydration or contamination. Dip slide into test fluid 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.

Return the slide to the container and close tightly. Incubate in an upright position at indicated temperature. Label the container for sample number, source, date and time etc. for reference.

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 over night or by autoclaving them after loosening the cap. An autoclave is not essential, a domestic pressure cooker will suffice.

Principle And Interpretation

Field of application:

Clinical, Water, Food, Dairy, Milk & Ice-cream, Beverages, Breweries, soft drinks.

HiDip slide is a handy tool for Isolation, enumeration and identification of specific bacteria in urine, food and water samples. These slides can also be used as touch slides for assessing the microbiological contamination of surfaces. HiDip slides are designed to monitor the microbial flora of liquids (e.g. urine, milk, water) and equipment surfaces in the clinical and food industries.

The HiDip slides containing combination of three agar media are prism shaped having all three agar media on separate, individual surfaces, The hinged scull allows easy touch against each test area during sampling. The surface area of scull is divided into ten units of one centimeter each to allow direct counting of microbial density per unit area.

CLED agar is recommended for isolation, enumeration and identification of urinary pathogens on the basis of lactose fermentation. Incubate slides at 35-37°C for 18-24 hours to observe the cultural characteristics.

MUGMac Medium is used for selective isolation and detection of lactose fermenting coliform organisms by a fluorogenic procedure. The medium helps to detect the presence of an enzyme alpha-glucoronidase and thereby rapidly identifying *Escherichia 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. Incubate slides at 35-37°C fro 18-24 hours to observe cultural characteristics.

Quality Control

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

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

pH of CLED Agar
7.10- 7.50

pH of MUG-MacConkey Agar
6.90- 7.30

Sterility test
Passes release criteria

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

Organism	Growth	Colour of Colony	*Fluorescence under uv
Part A : C.L.E.D Agar			
Staphylococcus aureus ATCC 25923	good-luxuriant	deep yellow	-
Enterococcus faecalis ATCC 29212	good-luxuriant	slight yellowish or greenish	-
Klebsiella pneumoniae ATCC 13883	good-luxuriant	yellow to whitish blu	-
Proteus vulgaris ATCC 13315	good-luxuriant	blue	-
Salmonella Typhi ATCC 6539	good-luxuriant	bluish	-
Part B : MUG-MacConkey Agar			
Enterobacter aerogenes ATCC 13048	luxuriant	-	negative
Escherichia coli ATCC 25922	good-luxuriant	yellow, opaque centre slightly deeper yellow	positive

Storage and Shelf Life

Store between 15-25°C. Use before expiry date on the label.

Reference

Refer Technical Data of M532 C.L.E.D. agar w/ Andrade Indicator & M1080 MUG MacConkey agar.

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