

C.L.E.D. Agar w/Bromo Thymol Blue

Medical laboratories media for the isolation, enumeration, and identification of urinary pathogens on the basis of lactose fermentation, while controlling the swarming of *Proteus* spp.

REF: BS.1/CE01.100.0100
REF: BS.1/CE01.500.0500

100 Gram
500 Gram

REF: BS.1/CE01.250.0250

250 Gram

CLINICAL SIGNIFICANCE ⁽¹⁾

CLED Agar is a non-selective differential plating medium for the growth and enumeration of urinary tract microorganisms. Omitting sodium chloride inhibits the *Proteus* swarming and supports the growth of the vast majority of bacteria causing urinary tract infections, and is used to differentiate and identify them. The presence of bacterial contaminants like Diphtheroids, *Lactobacilli* and other microbes indicate the degree of care taken with the handling of the urine specimen.

METHOD PRINCIPLE ⁽²⁻³⁾

The microorganisms which cause infection in the urinary tract are generally abundant and of only one species. *E. coli* is the organism most frequently isolated. The seeding of the sample can be done by the dilution method or by streaking on the surface of agar with a calibrated loop. Count the colonies after 24-48 hours of incubation at a temperature of $35 \pm 2^\circ\text{C}$. Report the number of colonies per ml of urine. A count of 100,000 (10⁵)/ml or more is an indication of a significant clinical urinary tract infection.

MEDIA COMPOSITION

Item	Formula in g/L
-Lactose	10.0
-Peptone	4.00
-Trypton	4.00
-Beef Extract	3.00
-L-Cystine	0.128
-Bromothymol Blue	0.02
-Agar	15.00

Final pH 7.3 ± 0.2 at 25°C

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the CLED agar material safety data sheet.

MEDIA PREPARATION, STORAGE AND STABILITY ⁽²⁾

BioScien CLED Agar dehydrated media are stable until expiration date stated on label when properly stored $10-30^\circ\text{C}$. Hydrated CLED Agar media is prepared by suspend 36.15 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 50°C , mix well and dispense into plates. When the medium is solidified, invert the plates to avoid excess moisture. The prepared medium should be stored at $8-15^\circ\text{C}$.

Deterioration

The color of **BioScien** CLED Agar medium is Blue/ Green, dehydrated medium is Cream to yellow homogeneous free flowing powder. If there are any physical changes, discard the medium. The hydrated medium is Blue/green colored gel, media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), and contaminations.

SPECIMEN COLLECTION AND PRESERVATION ⁽¹⁻³⁾

Urine

Urine samples to be collected in sterile container, specimens is stable in urine for 2 days at $15-25^\circ\text{C}$ and 6 days at $2-8^\circ\text{C}$ (freeze for longer storage).

Note: for patient preparation follow Medical laboratory instruction

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile cups
- Sterile petri-dishes
- Incubator

PERFORMANCE CHARACTERISTICS ⁽⁴⁾

Performance of the medium after incubation at a temperature of 35 ± 2°C and observed after 18-24 hours.

Test Organisms	Results
<i>Enterococcus faecalis</i> ATCC ® 29212	Growth; small slight yellowish or greenish colonies
<i>Escherichia coli</i> ATCC ® 25922	Growth; yellow colonies, opaque, center slightly deeper yellow
<i>Proteus mirabilis</i> ATCC ® 12453	Growth; translucent blue colonies
<i>Staphylococcus aureus</i> ATCC ® 25923	Growth; deep yellow colonies
<i>Pseudomonas aeruginosa</i> ATCC ® 27853	Growth; green colonies with matte surface and rough periphery
<i>Klebsiella pneumoniae</i> ATCC ® 13883	Growth; yellow to whitish-blue colonies, mucoid

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

REFERENCES

1. Mackey J. P. and Sandys G. H. (1966) B.M.J. 1. 1173.
2. Sandys G. H. (1960) J. Med. Lab. Techn. 17. 224.
3. Mackey J. P. and Sandys G. H. (1965) B.M.J. 2. 1286-1288.
4. Barry, A.L., P.B. Smith, and M. Turck. 1975. Cumitech 2, Laboratory diagnosis of urinary tract infections. Coordinating ed., T.L. Gavan. American Society for Microbiology, Washington, D.C

SYMBOLS IN PRODUCT LABELLING			
	For in-vitro diagnostic use		Number of <n> test in the pack
	Batch Code/Lot number		Caution
	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		



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