BROLACIN Agar (Bromothymol-blue Lactose Cystine Agar)

(C.L.E.D. Agar)

For the enumeration, isolation and preliminary identification of microorganisms in urine.

IVD *in vitro diagnosticum –*
For professional use only

See also General Instruction of Use
Warnings and precautions see ChemDAT®
(www.chemdat.info)

CE

Diagnosis of asymptomatic urinary tract infections depends on the detection of a significant bacteriuria, which is defined at the presence of at least 100,000 bacteria in 1 ml of morning urine.

Principle

Microbiological method

Mode of Action

This culture medium promotes the growth of all microorganisms found in urine. It is also an excellent universal culture medium owing to its wide spectrum of nutrients, lack of inhibitors and the fact that it allows a certain degree or differentiation between the colonies. It contains lactose as a reactive compound which, when degrated to acid, causes bromothymol blue to change its colour to yellow. Alkalinization produces a deep blue colouration. The lack of electrolytes suppresses the swarming of Proteus (SANDYS 1960).

Typical Composition (g/litre)

Peptones 7.0; yeast extract 2.0; meat extract 2.0; L-cystine 0.128; lactose 10.0; bromothymol blue 0.03; agar-agar 12.0.

Preparation and Storage

Usable up to the expiry date when stored dry and tightly closed at +15 to +25 °C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25 °C.

Suspend 33 g/litre, autoclave (15 min at 121 °C), pour plates.

pH: 7.3 ± 0.2 at 25 °C.

The plates are clear and bluish green.

Specimen

e.g. Urine.

Clinical specimen collection, handling and processing, see general instructions of use.Experimental Procedure and Evaluation

Inoculate by spreading a defined quantity (up to 1 ml) of the urine sample (dilute if necessary) or material to be tested on the surface of the plate. Incubation: 24 hours at 35 °C aerobically.

Appearance of Colonies	Microorganisms
Large, golden yellow, surrounding medium is yellow	Escherichia coli, lactose-positive Citrobacter and others
Large, golden yellow, usually mucoid, surrounding medium is yellow	Enterobacter, Klebsiella and others
Large, colouless, surrounding medium is blue	Proteus, Serratia and others
Large, brownish centre, surrounding medium is blue	Pseudomonas
Pale yellow, small, opaque	Streptococci
Deep yellow, very small, opaque	Staphylococci

Literature

SANDYS, G.H.: A new method of preventing swarming of Proteus sp. with a description of a new medium suitable for use in routine laboratory practice. - J. Med. Lab. Technol., 17; 224-233 (1960)

Ordering Information

Product	Merck Cat. No.	Pack size
BROLACIN Agar (Bromothymol-blue Lactose Cystine Agar)	1.01638.0500	500 g
Merckoplate® Brolacin Agar (C.L.E.D. Agar)	1.10411.0001	1 x 20 plates

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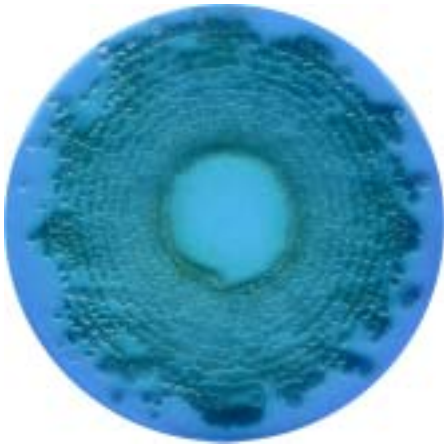
Quality control (spiral plating method)

Test strains	Inoculumn (cfu/ml)	Recovery (rate (%)	Colour change	Swarming
Escherichia coli ATCC 11775	10^3-10^5	≥ 70	yellow	
Salmonella typhimurium ATCC 13311	10^3-10^5	≥ 70	blue	
Shigella flexneri ATCC 29903	10^3-10^5	≥ 70	blue	
Proteus mirabilis ATCC 29906	10^3-10^5	≥ 70	blue	none/moderate
Proteus vulgaris ATCC 8427	10^3-10^5	≥ 70	blue	none / poor
Pseudomonas aeruginosa ATCC 27853	10^3-10^5	≥ 70	blue	
Staphylococcus aureus ATCC 6538	10^3-10^5	≥ 70	yellow	

Escherichia coli
ATCC 11775



Pseudomonas aeruginosa
ATCC 27853