

Cat. 1303

CLED Agar with Andrade's Indicator

Modification of CLED Agar with Andrade's indicator for the cultivation of pathogens from urine specimens.

Practical information

AplicationsCategoriesDetectionUrinary tract pathogensDifferentiationUrinary tract pathogens

Industry: Clinical

Principles and uses

CLED Agar with Andrade's Indicator is a non-selective solid medium for the cultivation of pathogens from urine specimens. It has a composition similar to CLED Agar, but with Andrade's indicator added. It is based on the principle of lactose fermentation, lowering the pH of the medium with acid production. It improves colony detection and microorganism identification by the addition of the acid fuchsin, which differentiates between lactose fermenting and non-lactose fermenting bacteria.

Beef extract, Casein peptone and Gelatin peptone provide nitrogen, vitamins, minerals and amino acids essential for growth; Lactose is the fermentable carbohydrate providing carbon and energy; L-Cystine is added as a growth supplement for cystine-dependent coliforms. Differentiation of lactose-fermenters and lactose non-fermenters is achieved using bromothymol blue and Andrade's indicator as pH indicators. Bacteriological Agar is the solidifying agent

Characteristics of the colonies:

- Escherichia coli: bright pink, semi- translucent colonies with surrounding pink halo.
- Proteus mirabilis: blue-green, translucent colonies.
- Staphylococcus aureus: smooth, entire, opaque bright golden yellow colonies. Lactose fermenting.

Formula in g/L

Bromthymol blue	0,02	Bacteriological agar	15
Casein peptone	4	Gelatin peptone	4
Lactose	10	L-Cystine	0,128
Beef extract	3	Andrade's indicator	0,1

Preparation

Suspend 36,2 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 Petri dishes.

Instructions for use

- Inoculate immediately after urine collection and incubate at $35 \pm 2^{\circ}$ C for no longer than 24 hours.

- If lactose-fermenters predominate, the whole medium may turn pink, masking the presence of non-lactose fermenters.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Green-beige	Dark blue	7,5±0,2

Microbiological test

Incubation conditions: (35±2 °C / 24 h).

Microrganisms	Specification	Characteristic reaction	
Escherichia coli ATCC 25922	Good growth	Bright pink, semi-translucent colonies	
Staphylococcus aureus ATCC 25923	Good growth	Golden yellow colonies	
Proteus mirabilis ATCC 25933	Good growth	Blue-green, translucent colonies	

Storage

Temp. Min.:2 °C Temp. Max.:25 °C

Bibliography

Bevis T.D. (1968) J. Med. Lab. Technol.25.38-41. Furniss A.L., Lee J.V. and Donovan T.J. (1978) P.H.L.S. Monograph series, London, H.M.S.O., 11.