Biomed Global

CLED Agar | Ready-to-use Media

Rev: 0
Effective Date: 20/05/2024
REF FP90C1002

Intended Use:

For the isolation, enumeration, and presumptive identification of microorganisms from urine.

Principle Of The Procedure:

Peptones and Lab Lemco powder are present to supply the materials required for the growth of bacteria and agar in the solidifying agent. Lactose provides a carbohydrate source. Bromothymol blue is a pH indicator which differentiates lactose fermenters (yellow) from non-fermenters. Cystine enhances the growth of cystine-dependent coliforms. Electrolytes are reduced in order to restrict the swarming of *Proteus spp.*

Product Summary:

Urinary tract infections, often referred to as UTIs, are common infections that occur when bacteria invade the urinary tract by entering via the urethra. These infections can impact different parts of the urinary tract, but the most prevalent is cystitis (a bladder infection). The symptoms of cystitis can include frequent urination, or needing to urinate whilst having an empty bladder, a burning sensation or pain whilst urinating, blood in the urine and pressure or cramps in the lower abdominal area. The symptoms of kidney infections are very different. These can include chills, a fever, nausea and vomiting and pain in the lower back[1] . There are many species of bacteria that cause UTIs, but most common are Escherichia coli, Staphylococcus aureus and Proteus mirabilis[2,3]. Due to the severity of UTIs in a vast number of patients, it is very important to be able to isolate and identify common UTI-causing microorganisms from urine samples and wound swabs. Early diagnosis is vital in the prevention and reduction of urinary tract infections.

Formulation*(PER LITER):

Peptone	4.0g	**L-Cystine**	0.128g
'Lab-Lemco' powder	3.0g	**Bromothymol Blue**	0.02g
Tryptone	4.0g	**Agar**	15.0g
Lactose	10.0g		

pH 7.3 +/- 0.2

*Adjust and/or supplemental as required to meet performance criteria

Procedure

Materials Provided

90mm CLED Agar.

Materials Required But Not Provided

Ancillary culture media, reagents, and laboratory equipment as required.

Rev: 0
Effective Date: 20/05/2024

Test Procedure

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. It is recommended that quantitative methods be used for culturing urine specimens.
3. Incubate at 35 ± 2°C for 18-24 hours.

Results

Count the number of colonies on the plate. Multiply by an appropriate number to convert the count to CFU per mL of sample. Contaminant bacteria usually appear in low numbers which vary in colonial morphology. Urinary pathogens will usually yield high counts having uniform colonial morphology and should be sub-cultured directly to routine media for identification and susceptibility testing.

Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated plates at 35 ± 2°C for 18 to 24 hrs. to allow colonies to develop on the medium.[4]

Strains	ATCC®	Growth Results
Proteus mirabilis	12453	Growth; colonies blue, medium blue-green to blue
Escherichia coli	25922	Growth; colonies yellow, medium yellow
Staphylococcus aureus	25923	Growth; colonies small, yellow; medium yellow
Proteus vulgaris	8427	Growth; colonies colorless to blue; swarming inhibited; slight spreading acceptable
Uninoculated plate	-	No growth

Storage And Shelf Life:

CLED Agar should stored at 2 to 8°C in their original pack wrapping until before use. Avoid freezing and overheating. The plates may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Warning And Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.

Limitation Of The Procedure

This medium is for laboratory use only and is not intended for the diagnosis of disease or other conditions. Identifications are presumptive and colonies should be identified using appropriate methods

Reference

1. Centres for Disease Control and Prevention. 2021. 'Urinary Tract Infection'. https://www.cdc.gov/antibiotic-use/uti.html
2. Centres for Disease Control and Prevention. 2021. 'E. coli Prevention'. https://www.cdc.gov/ecoli/ecoli-prevention.html.
3. Centres for Disease Control and Prevention. 2021. 'Staphylococcus aureus in Healthcare Settings'. https://www.cdc.gov/hai/organisms/staph.htm

Rev: 0
Effective Date: 20/05/2024

Packaging Symbol

Symbol	Definition
	Catalogue number
	In Vitro Diagnostic Medical Device
	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

Further Information:

For further information please contact your Biomed MDx representative.

Biomed MDx (M) Sdn Bhd
8, Jalan IAN 3, Industri Angkasa Nuri,
76100 Durian Tunggal, Melaka, Malaysia
+6063370191
https://www.biomed-global.com/
info@biomedmdx.com