

UROPLATE (CLED – MAC CONKEY – CETRIMIDE)

IVD in Class A, EU Reg. 2017/746

 For in vitro diagnostic use **IVD**

 Media for the total enumeration of microorganisms and for the determination of Gram-negative bacteria and *Pseudomonas aeruginosa* in urine.

DESCRIPTION

 Media for the total enumeration of microorganisms and for the determination of Gram-negative bacteria and *Pseudomonas aeruginosa* in urine.

PRINCIPLE

CLED is a medium for the total bacterial count in urine: meat extract, peptone and tryptone are a source of nitrogen, carbon, sulfur and other essential growth factors. Lactose is a source of energy. Cystine allows the growth of cystine-dependent coliforms. The blue of bromothymol is a pH indicator used to distinguish lactose-fermenting from non-fermenting bacteria.

MAC CONKEY is a selective medium for the isolation of Gram-negative bacteria: bile salts and crystal violet inhibit the growth of Gram-positive bacteria, the dye mainly inhibits the growth of enterococci and staphylococci. The fermentation of lactose causes acidification of the medium with consequent precipitation of bile salts and absorption of neutral red.

CETRIMIDE is a selective medium for the isolation of *Pseudomonas aeruginosa*. Peptone is a carbon source. Magnesium chloride and potassium sulfate promote the formation of pyocyanin. Cetrinide is a quaternary ammonium compound with bactericidal activity towards a wide range of Gram-positive microorganisms and some Gram-negative microorganisms. Glycerol is a source of energy and promotes the production of pyocyanin, a blue-green pigment that diffuses into the medium surrounding the growth zones of *Pseudomonas*. Agar is the solidifying agent.

CLED AGAR

COMPOSITION	g/L
Enzymatic Digest of Gelatin	4.0
Enzymatic Digest of Casein	4.0
Beef Extract	3.0
Lactose	10.0
L-Cystine	0.128
Bromothymol Blue	0.02
Agar	15.0

Final pH 7,3 ± 0,2 at 25°C

MAC CONKEY AGAR

COMPOSITION	g/L
Peptone	17.0
Lactose	10.0
Sodium Chloride	5.0
Bile Salts No.2	1.5
Neutral Red	0.03
Crystal Violet	0.001
Agar	13.5

Final pH 7,2 ± 0,2 at

CETRIMIDE AGAR

COMPOSITION	g/L
Pancreatic Digest of Gelatin	20.0
Magnesium Chloride	1.4
Dipotassium Sulfate	10.0
Cetrinide	0.3
Agar	13.6
Glycerol	10.0 ml

Final pH 7,2 ± 0,2 at

WARNING AND PRECAUTIONS

For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

Prepared Medium: The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

Safety Data Sheet is available on request for professional users.

All waste must be disposed of according to local directives.

STORAGE AND STABILITY

Prepared medium: 10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

PROCEDURE

Streak the material over the entire surface using a sterile loop. Incubate at 36 ± 1 ° C in an aerobic atmosphere for 18-24 hours.

Observe bacterial growth on the medium.

QUALITY CONTROL

CLED AGAR: clear bluish-green agar.

MAC CONKEY AGAR: reddish-pink, clear medium without precipitates.

CETRIMIDE AGAR: slightly amber, slightly opalescent agar.

CLED AGAR → Typical response after incubation at 37°C for 24-48 hours:

MICROORGANISM	GROWTH
<i>Proteus vulgaris</i> ATCC 13315	Good/Blue
<i>Staphylococcus aureus</i> ATCC 25923	Good/Yellow

MAC CONKEY AGAR → Typical response after incubation at 37°C for 48 hours:

MICROORGANISM	GROWTH
<i>Escherichia coli</i> ATCC 25922	Good/Red
<i>Enterobacter aerogenes</i> ATCC 13048	Good/Red
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited

CETRIMIDE AGAR → Typical response after incubation at 37°C for 24-48 hours:

MICROORGANISM	GROWTH
<i>Pseudomonas aeruginosa</i> ATCC 10145	Good/Blue-green colonies with fluorescence under UV light
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited
<i>E. coli</i> ATCC 25922	Inhibited

REFERENCES

1. Isenberg, H.D. (1992). Clinical microbiology procedures handbook. American Society of Microbiology, Washington, D.C.
2. NCCLS document M22-A2, 1996. Approved Standard.
3. FDA (1995) Bacteriological Analytical Manual, 8 th ed. Revision A, 1998.
4. United States Pharmacopoeia 24,2000. Microbial Limit Tests, 1814:1818.
5. The United States Pharmacopoeia. (2002). Microbial Limit Tests, united States Pharmacopoeia, 26th Ed. United States Pharmacopial convention, Rockville, M.D.

PRESENTATION

Packaging
REF.
UROPLATE (CLED – MAC CONKEY – CETRIMIDE)
20 pcs (90mm ready-to-use plates with three sectors) 3304888/20

SYMBOLS

	Read the instructions		Biological hazard
	CE Mark (product complies with the requirements of Regulation (EU) 746/2017)		Use by
	Temperature limitation		Manufacturer
	For in vitro diagnostic use		