

URINE CHROMOGENIC AGAR

 For in vitro diagnostic use **IVD**

DESCRIPTION

Urine Chromogenic Agar is a nonselective medium for the isolation, direct identification, differentiation and enumeration of urinary tract pathogens.

PRINCIPLE

The most frequently isolated species or organism groups produce characteristic enzymes. Thus, it is possible to identify these organisms to the species level with a limited number of substrate fermentation or utilization tests.

Some of the organisms involved produce enzymes either for the metabolism of lactose or glucosides or both, whereas others produce none of these enzymes. As an example, *E. coli* produces enzymes of the lactose metabolism but is β -glucosidase negative. Other members of the family Enterobacteriaceae are β -glucosidase positive but do not contain enzymes necessary for lactose fermentation, and others may contain both types of enzymes or none of them. β -glucosidases are also found in Gram positive cocci such as *Enterococcus* spp. and *Streptococcus agalactiae*. Tryptophan deaminase (TDA) is an enzyme characteristically found in the *Proteus-Morganella-Providencia* group of organisms. In Urine Chromogenic Agar, specially selected peptones supply the nutrients. The chromogen mix consists of artificial substrates (chromogens) which release differently colored compounds upon degradation by specific microbial enzymes, thus assuring the direct differentiation of certain species or the detection of certain groups of organisms, with only a minimum of confirmatory tests.

COMPOSITION	g/L
Mix Peptone	16.0
Tryptophane	2.0
Growth factors	13.0
Chromogenic substrate	0.5
Agar	16.0

Final pH 7,2 ± 0,2 at 25°C

WARNING AND PRECAUTIONS

For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

Dehydrated medium: HIGHLY HYGROSCOPIC. During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

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

Dehydrated medium:	2-8°C
Prepared medium:	2-8°C

URINE CHROMOGENIC AGAR is stable until the expiration date indicated on the label under the recommended storage conditions.

PREPARATION

Dehydrated medium: Suspend 47,5 g of the powder in 1 liter of distilled or deionized water. Mix thoroughly to completely dissolve the powder. Autoclave at 121°C for 15 minutes. Cool to 45-50°C. Aseptically dispense in Petri dishes on a level, horizontal surface to give a uniform depth of about 4 mm and cool to room temperature.

Prepared medium (bottles): Melt the content of the bottle in a water bath at 100°C until completely dissolved. Then screw the cap and check the homogeneity of the dissolved medium, if it is the case turning the bottle upside down. Cool at 45-50°C, mix well avoiding foam formation and aseptically distribute into Petri dishes.

Prepared medium (plates): ready to use.

PROCEDURE

Use of calibrated loops or other techniques commonly used for the plating of urine specimens is mandatory to obtain isolated colonies with their typical colors and shapes. Collect a sample of the undiluted, well-mixed urine using a calibrated loop (0.01 or 0.001 ml). Ensure proper loading of the loop with the specimen.

Inoculate the sample down the middle of the plate in a single streak from which additional spreading of the inoculum is performed. Incubate the inoculated plates in an inverted position at 35 to 37° C aerobically for 20 to 24 hours.

RESULTS

MICROORGANISM	COLONY COLORS
<i>E. coli</i>	Pink
<i>Enterobacter aerogenes</i>	Dark Blue
<i>Klebsiella pneumoniae</i>	Dark Blue
<i>Proteus mirabilis</i>	Brown
<i>Enterococcus faecalis</i>	Light Blue (turquoise)
<i>Staphylococcus aureus</i>	White-cream

QUALITY CONTROL

Dehydrated medium: fine, dry, homogeneous, free of extraneous material, beige

Prepared medium: slightly opalescent, amber.

Typical response after incubation at 35±2°C for 18-24 hours, in aerobiosis

MICROORGANISM	GROWTH/COLONIES
<i>E. coli</i> ATCC 25922	Good/Pink
<i>Enterobacter aerogenes</i> ATCC 13048	Good/Dark Blue
<i>Klebsiella pneumoniae</i> ATCC 13883	Good/Dark Blue
<i>Proteus mirabilis</i> ATCC 13315	Good/Brown
<i>Staphylococcus aureus</i> ATCC 25923	Good/White-cream
<i>Enterococcus faecalis</i> ATCC 19433	Good/Light Blue (turquoise)

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PRESENTATION

Packaging
REF.

Dehydrated medium:

URINE CHROMOGENIC AGAR
500 g (10.5 L)
10318

Prepared medium:

URINE CHROMOGENIC AGAR
6 x 100 mL bottles
63368
12 x 200 mL bottles
63368/12
20 pcs (90 mm ready-to-use plates)
3092802/20

SYMBOLS



Read the instructions



Biological hazard



CE Mark (product complies with the requirements of Regulation (EU) 746/2017)



Temperature limitation



Use by



For in vitro diagnostic use



Manufacturer