

# CHROMagar™ Orientation



## MEDIUM PURPOSE

Chromogenic medium for the isolation and differentiation of urinary tract pathogens.

## COMPOSITION

The product is composed of a single powder base.

Product	=	Base
Total g/L		33.0 g/L
Composition g/L		Agar 15.0 Peptone and yeast extract 17.0 Chromogenic mix 1.0
Aspect		Powder Form
<b>STORAGE</b>		<b>15-30°C</b>
<b>FINAL MEDIA pH</b>		7.0 +/- 0.2

## PREPARATION (Calculation for 1L)

### Step 1

Preparation of the mix

- Disperse slowly 33g of powder base in 1L of purified water.
- Stir until agar is well thickened.
- Advice 1 (optional):** For enhanced growth, add 0.5g of Tween 80 to the previous preparation mix.
- Heat and bring to boil (100°C) while swirling or stirring regularly.
- Advice 2:** For the 100°C heating step, mixture may also be brought to a boil in a microwave oven: after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).
- AUTOCLAVE at 121°C during 15 min.

### Step 2

Pouring

- Cool in a water bath to 45-50°C, swirling or stirring gently.
- Pour into sterile Petri dishes.
- Let it solidify and dry.

### Storage

- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to 2 months under refrigeration (2/8°C) if properly prepared and protected from light and dehydration.

## INOCULATION

Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 37°C for 18-24 hours.

### Typical Samples

e.g. urine  
\*\*\*

Possible enrichment step  
Direct streaking  
or spreading technique

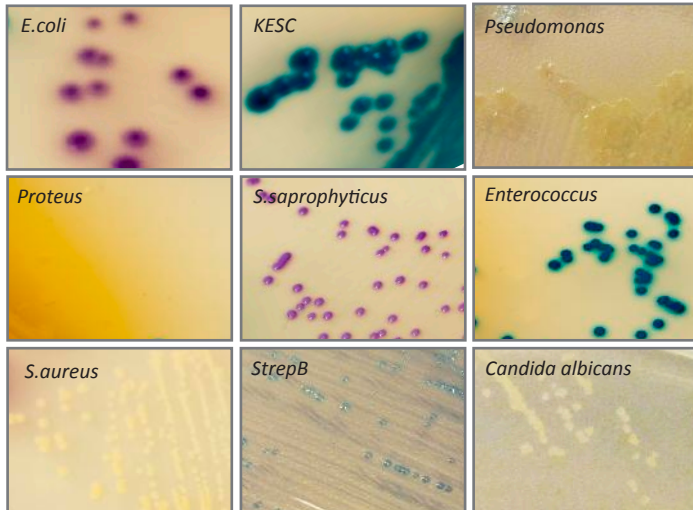
## INTERPRETATION

Microorganism	Typical colony appearance
<b>Gram (-)</b>	
<i>E.coli</i>	→ dark pink to reddish
<i>Klebsiella, Enterobacter, Citrobacter, Serratia</i>	→ metallic blue (+/- reddish halo)
<i>Proteus, Morganella, Providencia</i>	→ brown halo
<i>Proteus vulgaris</i>	→ blue with brown halo
<i>Pseudomonas</i>	→ translucent ( +/- natural pigmentation cream to green)
<i>Acinetobacter</i>	→ cream
<i>Stenotrophomonas</i>	→ colourless

Microorganism	Typical colony appearance
<b>Gram (+)</b>	
<i>Enterococcus</i>	→ turquoise blue
<i>S.aureus</i>	→ golden, opaque, small
<i>S.epidermidis</i>	→ cream, pinpoint colonies
<i>S.saprophyticus</i>	→ pink, opaque, small
<i>StrepB</i>	→ light blue
<b>Yeasts</b>	
<i>Candida albicans</i>	→ cream, pinpoint colonies

# CHROMagar™ Orientation

## Typical colony appearance



The pictures shown are not contractual.

## PERFORMANCE & LIMITATIONS

- Sensitivity for *E. coli* is 99.3% (Merlino et al. 1996).
- Most of *Serratia Plymutica* will grow mauve.
- Final identification may require additional testing such as biochemical or immunological test:

Colonies	Suggested tests	Possible identification
Red	Indole Test: The medium allows indole test for confirmation of <i>E. coli</i>	Indole (+) --> <i>E. coli</i>
brown halo	TDA test (with FeCl <sub>3</sub> Test) for confirmation of <i>Proteus</i> .	(+) --> <i>Proteus vulgaris</i> (blue colony center, <i>Morganella</i> , <i>Providencia</i> . (-) --> <i>Proteus mirabilis</i>
Turquoise blue, small gram stain + cocci appearance	PYR test (or serological or hemolysis)	<b>PYR (+)</b> --> Enterococcus <b>PYR (-)</b> --> <i>Streptococcus B</i>

## QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms. Good preparation of the medium can be tested, isolating the ATCC strains below:

Microorganism	Typical colony appearance
<i>E. faecalis</i> ATCC® 29212	→ turquoise blue
<i>E. coli</i> ATCC® 25922	→ reddish
<i>S. aureus</i> ATCC® 12600	→ golden yellow
<i>S. epidermidis</i> ATCC® 12228	→ colourless

Microorganism	Typical colony appearance
<i>S. saprophyticus</i> ATCC® 15305	→ pink
<i>K. pneumoniae</i> ATCC® 13883	→ metallic blue

## WARNINGS

- Do not use plates if they show any evidence of contamination or any sign of deterioration.
- Do not use the product beyond its expiry date or if product shows any evidence of contamination or any sign of deterioration.
- For *in vitro* diagnostic use. This laboratory product should be used only by trained personnel in compliance with good laboratory practices.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Unappropriate storage may affect the shelf life of the product.
- Recap the bottles tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- For a good microbial detection: collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.

## DISPOSAL OF WASTE





After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.

## REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.



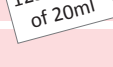
Web link: <http://www.chromagar.com/publication.php>

## IFU/LABEL INDEX

-  Quantity of powder sufficient for X liters of media
-  Expiry date
-  Required storage temperature
-  Store away from humidity

### Need some Technical Documents?

- Available for download on [www.CHROMagar.com](http://www.CHROMagar.com)
- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

Pack Size	Ordering References	Weight
1000 ml 	<b>RT410</b>	Weight: 33gr
5000 ml 	<b>RT412</b>	Weight: 165gr
25 L 	<b>RT413-25</b>	Weight: 825gr
Bulk size	<b>on request</b>	

CHROMagar™ and Rambach™ are trademarks created by Dr A. Rambach  
ATCC® is a registered trademark of the American Type Culture Collection  
NT-EXT-002 V11 18-Sep-13