

CHROMagar™ *Y. enterocolitica*

Instructions For Use
For Research Use Only (RUO).
Not for use in diagnostic procedures.

REFERENCES

Pack Size 5000 mL = 250 Tests of 20 mL	Ordering References YE492	=	Base (B) YE492(B) Weight: 206.5 g	+	Supplement (S) YE492(S) Weight: 0.5 g
--	-------------------------------------	---	--	---	--

MEDIUM PURPOSE

Chromogenic medium for detection and differentiation of pathogenic *Yersinia enterocolitica*.

Among the *Yersinia* genus, *Yersinia enterocolitica* is one of the most common food borne pathogen. In several countries, *Y. enterocolitica* has eclipsed *Shigella* and approaches *Salmonella* and *Campylobacter* as the predominant cause of acute bacterial gastroenteritis. Its ability to grow at refrigeration temperature makes it an increasing concern in terms of food safety. This germ most commonly affects young individuals. However, only a few strains of *Y. enterocolitica* cause illness in humans.

COMPOSITION

The product is composed of a powder base (B) and 1 supplement (S).

Product	=	Base (B)	+	Supplement (S)
Total g/L		41.3 g/L		0.1 g/L
Composition g/L		Agar 15.0 Peptones 20.0 Salts 5.0 Chromogenic mix 1.3		Selective mix 0.1
Aspect		Powder Form		Powder Form
STORAGE		15/30 °C		2/8 °C
FINAL MEDIA pH		7.0 +/- 0.2		

Need some
Technical Documents?

Available
for download on
www.CHROMagar.com

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)

PREPARATION (Calculation for 1L)

Step 1

Preparation of the base
CHROMagar™
Y. enterocolitica (B)

- Disperse slowly 41.3 g of powder base in 1 L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boil (100 °C) while swirling or stirring regularly.
DO NOT HEAT TO MORE THAN 100 °C. DO NOT AUTOCLAVE AT 121 °C.

Warning 1: If using an autoclave, do so without pressure.

Advice 1: 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).

- Cool in a water bath to 45-50 °C +/- 2 °C.

Step 2

Preparation of the
Supplement (S)

- Prepare a stock solution of the supplement (S):
Add 100 mg to 1 mL of purified water.
- Swirl well until complete dissolution. Filter sterilise at 0.45 µm.

Warning 2: This supplement stock solution should be used immediately after preparation, or can be stored at -20 °C and used within 15 days.

Final Media **HELPING CALCULATION**

500 mg	
5 L	5 mL of sterile water
2500 mg	
25 L	25 mL of sterile water

Step 3

Mixing of the
prepared mix (B)
and the prepared
supplement (S)

- Add 1 mL of the prepared supplement solution to the prepared base cooled at 45-50 °C +/- 2 °C.
- Swirl gently to homogenize.
- Pour into sterile Petri dishes.
- Let it solidify and dry.

Final Media **HELPING CALCULATION**

Add 5 mL of supplement to the base	
5 L	
Add 25 mL of supplement to the base	
25 L	

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 one month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.

CHROMagar™ *Y. enterocolitica*

Instructions For Use
For Research Use Only (RUO).
Not for use in diagnostic procedures.

SPECIMEN COLLECTION AND HANDLING

CHROMagar™ *Y. enterocolitica* can be used with the following specimens: human stools.

Use of transport devices approved for collection of such specimens is recommended.

MATERIAL REQUIRED BUT NOT PROVIDED

Standard microbiological laboratory material for culture media preparation, control, streaking, incubation and waste disposal.

INOCULATION

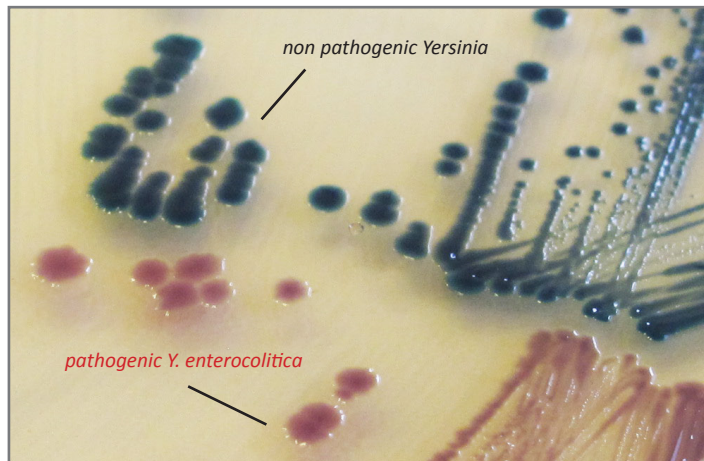
Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 30 °C for 36 hours.

INTERPRETATION

Microorganism	Typical colony appearance
Pathogenic <i>Y. enterocolitica</i>	→ mauve
<i>Yersinia</i> spp	→ metallic blue or inhibited
Other <i>Enterobacteriaceae</i>	→ metallic blue or inhibited
Gram (+) bacteria	→ inhibited

Typical colony appearance



The pictures shown are not contractual.

PERFORMANCE

In the following study, 1 494 stools samples were tested and read after 48 h of incubation at 28 °C.

	CHROMagar™ <i>Y. enterocolitica</i>	Reference Method (CIN agar)
Sensitivity	100 % *	100 %
Specificity	99 % *	90.4 %

* Data obtained from the study «CHROMagar™ *Yersinia*, a New Chromogenic Agar for screening of potentially pathogenic *Yersinia enterocolitica* isolates in stools» Olivier Gaillot *et al.* Journal of Clinical Microbiology 2013.

LIMITATIONS AND COMPLEMENTARY TESTS

- Some *Y. enterocolitica* could have a poor or no growth on the media. Some rare strains of non-pathogenic *Yersinia* could appear as mauve colonies (*Y. bercovieri*, *Y. mollareti*, *Y. kristensenii*, *Y. rohdei* etc).
- Final confirmation as pathogenic *Y. enterocolitica* must be done by appropriate methods.

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 following ATCC strains:

Microorganism	Typical colony appearance
<i>Y. enterocolitica</i> pYV+ ATCC® 23715	→ mauve
<i>Y. enterocolitica</i> pYV- biotype 1A	→ metallic blue
<i>E. coli</i> ATCC® 25922	→ inhibited
<i>E. faecalis</i> ATCC® 29212	→ inhibited
<i>P. aeruginosa</i> ATCC® 9027	→ inhibited
<i>C. freundii</i> ATCC® 8090	→ partially inhibited

WARNINGS AND PRECAUTIONS

- For Research Use Only (RUO). Not for use in diagnostic procedures.
- This laboratory product should be used only by trained personnel (healthcare professional, etc). Wear appropriate protective clothing, gloves and eye/face protection and handle appropriately with procedures and good laboratory practices.
- Use of the medium may be difficult for people who have problems recognising colours.
- 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.
- Culture media should not be used as manufacturing material or components.
- Do not ingest or inhale the product.
- Do not use the product after the expiry date.
- Do not use the product if it show any evidence of contamination or any sign of deterioration.
- Do not use the product if the packaging is damaged.
- 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/vials tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- Reading and interpretation should be performed using isolated colonies.
- Some precipitates may be observed in the agar but these do not affect the performance of the product.

CHROMagar™ *Y. enterocolitica*

Instructions For Use
For Research Use Only (RUO).
Not for use in diagnostic procedures.

ENGLISH

Instructions For Use

- Interpretation of the test results should be made taking into consideration colonial and microscopic morphology and if necessary, the results of any other tests performed.
- Laboratory, chemical or biohazardous wastes must be handled and discarded in accordance with all local and national regulations.
- For hazard and precaution recommendations related to some chemical components in this medium, please refer to the pictogram(s) mentioned on the labels. The Safety Data Sheet (SDS) is available on www.chromagar.com

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.

LITERATURE 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

-  REF Catalogue reference
-  Consult instructions for use
-  Quantity of powder sufficient for X liters of media
-  Expiry date
-  Required storage temperature
-  Store away from humidity
-  Protect from light
-  Manufacturer

NT-EXT-073 USA V3.0 / 08-Jul-19

CHROMagar™ and Rambach™ are trademarks created by Dr A. Rambach
ATCC® is a registered trademark of the American Type Culture Collection

CHR  **Magar**
The Chromogenic Media Pioneer

 CHROMagar 4 place du 18 juin 1940
75006 Paris - France
Email: CHROMagar@CHROMagar.com
Tel +33 (0)1.45.48.05.05. Website: www.CHROMagar.com