# CHROMagar™ **Acinetobacter**

Chromogenic medium for detection of Acinetobacter and MDR Acinetobacter spp.

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

#### REFERENCES

Σ Pack Size	15	Ordering References		Base (B)	Supplement (S)
5000 mL	250 Tests of 20 mL	AC092	=	AC092(B) Weight: 164 g	+ AC092(S) Volume: 20 mL
5000 mL	=	CR102	=	MDR Selective Suppl. (optional)	

### **INTENDED USE**

CHROMagar™ Acinetobacter is a selective and differential chromogenic culture medium, intended for use in the qualitative direct detection of colonization with *Acinetobacter* to aid in the prevention and control of *Acinetobacter*, drug-susceptible or multi-drug resistant (MDR), in healthcare settings. The test is performed with rectal swabs, nare swabs, wound swabs, stools and urine samples from patients to screen for *Acinetobacter* colonization. It can also be used in hygiene monitoring in the clinical environment with surface sampling. Results can be interpreted after 18-24 h of aerobic incubation at 35-37 °C.

The medium can also be used as an early warning indicator for diagnostic tests of infections to signal the possible presence of multi drug-resistant bacteria. This use does not replace the institution's protocols.

CHROMagar™ Acinetobacter is not intended to diagnose *Acinetobacter* infection nor to guide nor monitor treatment for infections. A lack of growth or the absence of colonies on CHROMagar™ Acinetobacter does not preclude the presence of *Acinetobacter*. Further identification, susceptibility testing, and epidemiological typing is needed on suspect colonies.

#### **COMPOSITION**

The product is composed of a powder base and 2 supplements.

Product =	Base (B)	Supplement (S)	MDR Selective suppl.
Total g/L	32.8 g/L	4 mL/L	
Composition g/L	Agar 15.0 Peptone and yeast extract 12.0 Salts 4.0 Chromogenic mix 1.8	Growth and regulator factors	5 vials (1 vial = qsf 1000 mL of final media)
Aspect	Powder Form	Liquid Form	freeze dried vials
STORAGE	15-30 °C	15-30 °C	2-8 °C
FINAL MEDIA pH		7.0 +/- 0.2	

Need some Technical Documents?

**OPTIONAL** 

Available for download on www.CHROMagar.com

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

### PREPARATION (Calculation for 1 L)

Step 1
Preparation

- Disperse slowly 32.8 g of powder base in 1 L of purified water.
- Add 4.0 mL of the liquid supplement AC092(S) into slurry.
- 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: in case of product samples containing a high load of *Pseudomonas* and/or *Aeromonas*, Cefsulodin can be added at 5 mg/L.

Cool in a water bath to 45-50 °C, swirling or stirring gently.

**OPTION:** If screening <u>is focused on MDR Acinetobacter</u>, add the MDR Selective Suppl. ref CR102 as following:

Step 2
OPTIONAL

- Rehydrate one vial with 5 mL of purified water.
- Add 5 mL of this solution to the melted mix (step 1) at 45-50 °C.
- Stir well for homogenization.

HELPING CALCULATION

1 L final --> Use 1 vial

5 L final --> Use 5 vials media

media

Step 3
Pouring

- · Pour into sterile Petri dishes.
- Let it solidify and dry.

Warning 2: Slight variation of the media colouration after solidification can be observed, from yellowish to light orange without any impact on the media performance.

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.

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## SPECIMEN COLLECTION AND HANDLING

CHROMagar $^{\text{TM}}$  Acinetobacter can be used with the following specimens: rectal, nares and wounds swabs, stools, urine and surface samples.

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.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 35-37 °C for 18-24 hours.

#### **INTERPRETATION**

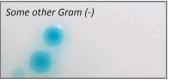
Microorganism	Typical colony appearance
Acinetobacter sp.	→ Red
Other Gram (-)	→ Mostly inhibited or blue
Gram (+) bacteria & yeasts	→ Mostly inhibited

# **CHROM**agar<sup>™</sup> Acinetobacter with MDR Selective Suppl.

MDR Acinetobacter	$\rightarrow$ Red
Non-MDR Acinetobacter	→ Mostly inhibited
Other Gram (-)	→ Mostly inhibited or blue
Gram (+) bacteria & yeasts	→ inhibited

#### **Typical** colony appearance





The pictures shown are not contractual

#### **PERFORMANCE**

	Analytical data *	Clinical data**		
		CHROMagar™ Acinetobacter	Reference medium (Drigalski)	
Sensitivity	100 %	100 %	46 %	
Specificity	100 %	99.9 %	90 %	

- \* Data obtained after a 18-20 h incubation at 35-37 °C in aerobic conditions in the study «Laboratory evaluation of different agar media for isolation of carbapenem-resistant *Acinetobacter* spp.» Moran-Gilad *et al.*, 2014, *Eur. J. Clin. Microbiol. Infect. Dis.*
- \*\* Data obtained after a 18 h incubation at 37 °C in aerobic conditions with rectal and nasal swabs from 1022 patients in the study «Overnight identification of imipenem-resistant *Acinetobacter baumannii* carriage in hospitalized patients». Gaillot *et al.*, Poster ICAAC 2010.

#### LIMITATIONS AND COMPLEMENTARY TESTS

- Definite *Acinetobacter* may require additional confirmatory testing such as biochemical or immunological test: Latex agglutination confirmation test can be performed directly from the plates on suspected colonies.
- Some other non-fermenting gram negative strains such as *Pseudomonas* sp. or *Stenotrophomonas* sp. can display similar colouration appearance as *Acinetobacter*.

These bacteria, well-known to be frequently Multi-Drug Resistant, can grow even in presence of the MDR Selective Suppl.

- *Pseudomonas* strains can be easily differentiated performing an oxydase test.
- *Stenotrophomonas* strains can be easily distinguished as forming tiny colonies at 18-24h.
- Some *Enterobacteriaceae* strains may grow as blue to metallic blue colonies.

#### **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		
	Without MDR supplement	With MDR supplement	
Acinetobacter baumannii ATCC® 19606	→ red	→ inhibited	
Acinetobacter baumannii ATCC® BAA1605	→ red	→ red	
E. faecalis ATCC® 29212	→ inhibited	→ inhibited	
C. tropicalis ATCC® 1369	→ inhibited	→ 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.

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- 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.
- 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 <a href="https://www.chromagar.com">www.chromagar.com</a>

## **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-056 USA V11.0 / 13-May-2022

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