

CHROMagar™ MRSA

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

Chromogenic medium for the isolation and differentiation of Methicillin Resistant *Staphylococcus aureus* (MRSA)

REFERENCES

Σ Pack Size	Ordering References	Base	Supplement
5000 mL 250 Tests of 20 mL	MR502	MR502 Weight: 412.5 g	SU620

INTENDED USE

CHROMagar™ MRSA is a selective and differential chromogenic medium for the qualitative direct detection of colonization by methicillin resistant *Staphylococcus aureus* (MRSA) to aid in the prevention and control of MRSA in healthcare settings. The test is performed on anterior nares or perineal swab specimens from patients and healthcare workers to screen for MRSA colonization. Results can be interpreted after 18-24 h of aerobic incubation at 35-37 °C.

CHROMagar™ MRSA is not intended to diagnose, guide, nor monitor therapy for MRSA infections, nor provide results of susceptibility to methicillin. A lack of growth or the absence of pink colonies on CHROMagar™ MRSA does not preclude the presence of MRSA. Further identification, susceptibility testing, and epidemiological typing is needed on suspect colonies.

CHROMagar™ MRSA can also be used in conjunction with other laboratory tests and clinical data available to aid in the identification and in the diagnosis of MRSA infections in skin, soft tissue, wounds and positive blood cultures. Concomitant cultures are necessary to recover organisms for further microbiological susceptibility testing or epidemiological typing.

COMPOSITION

The product is composed of a powder base and 1 supplement.

Product	=	Base	+	Supplement
Total g/L		82.5 g/L		
Composition g/L		Agar 15.0 Peptones and yeast extract 40.0 Salts 25.0 Chromogenic mix 2.5		
Aspect		Powder Form		Freeze-dried vial
STORAGE		15-30 °C		2-8 °C
FINAL MEDIA pH		6.9 +/- 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 1 L)

Step 1

Preparation of the base
CHROMagar™
MRSA base (B)

- Disperse slowly 82.5 g of powder base in 1 L of purified water.
- Stir until agar is well thickened.
- Autoclave at 110 °C during 5 min.
DO NOT AUTOCLAVE AT 121 °C. DO NOT HEAT LONGER THAN 5 MIN.
- Cool in a water bath to 45-50 °C.
- Swirl or stir gently to homogenize.

Step 2

Preparation of the
Supplement (S)

- For reconstitution, aseptically rehydrate CHROMagar™ MRSA supplement ref SU620 with 20.0 mL of sterile water.
- Mix slowly.
- Add 1 mL of CHROMagar™ MRSA supplement to the prepared CHROMagar™ MRSA medium

Step 3

Pouring

- 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 one month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.
- Advice 2: If not fully used, rehydrated CHROMagar™ MRSA supplement can be stored one week at 2-8 °C or up to 2 months at -20 °C.

SPECIMEN COLLECTION AND HANDLING

CHROMagar™ MRSA can be used with the following specimens: nasal and perineal specimens.

This medium can be also used in environmental and veterinary fields with the following specimens: pets, livestock, poultry, clinical and other materials.

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

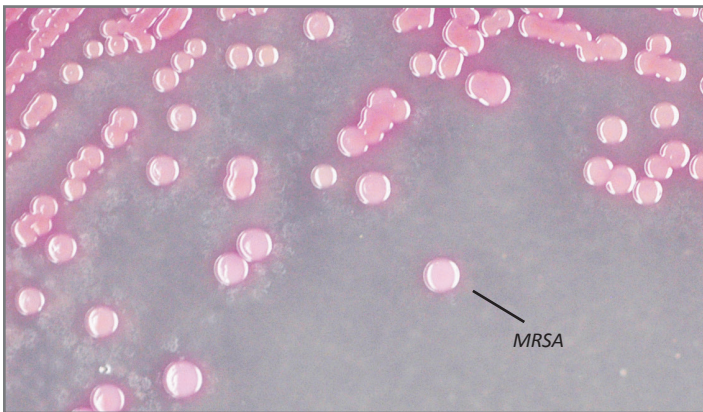
Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

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

INTERPRETATION

Microorganism	Typical colony appearance
MRSA	→ pink to mauve
MSSA	→ inhibited
Other bacteria	→ inhibited, colourless, blue

Typical colony appearance



The pictures shown are not contractual.

PERFORMANCE

	Analytical data *		Clinical data**	
		CHROMagar™ MRSA		Reference medium (TSA + 5 % Horse Blood)
Sensitivity	95.4 %	95.6 %		83.2 %
Specificity	100 %	100 %		-

* Data obtained after 24 h incubation at 35 °C in aerobic conditions in the study «Performance of CHROMagar MRSA Medium for Detection of Methicillin-Resistant *Staphylococcus aureus*». Diederens *et al.* 2005. *J. Clin. Microbiol.*

** Data obtained after 24 h incubation at 37 °C in aerobic conditions with 831 nasal swabs in the study «Evaluation of a new chromogenic medium for isolation and presumptive identification of Methicillin Resistant *S. aureus* from human clinical specimens». Loulergue *et al.* 2006. *Eur. J. Clin. Microbiol. Infect. Dis.*

LIMITATIONS AND COMPLEMENTARY TESTS

- Definite identification as MRSA requires, in addition, a final identification as *S. aureus*.

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
MR <i>S. aureus</i> ATCC® 33592	→ mauve
MS <i>S. aureus</i> ATCC® 25923	→ inhibited
<i>E. faecalis</i> ATCC® 29212	→ inhibited
<i>E. coli</i> ATCC® 25922	→ inhibited
<i>C. albicans</i> ATCC® 10231	→ 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 shows 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 precipitate may be observed in the agar but these do not affect the performance of the product.
- 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: www.chromagar.com/product/chromagar-mrsa/

IFU/LABEL INDEX

-  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

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