CHROMagar™ Salmonella

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

ENGLISH

Instructions For Use

Chromogenic medium for detection and isolation of *Salmonella* species, including *S.* Typhi and *S.* Paratyphi

REFERENCES

Pack Size			Ordering References	
5000 mL	250 Tests of 20 mL	=	SA132	Weight: 174.5 g
25 L	1250 Tests of 20 mL	=	SA133-25	Weight: 872.5 g

INTENDED USE

CHROMagar™ Salmonella is a selective chromogenic culture medium intended for use in the qualitative direct detection, differentiation, and presumptive identification of *Salmonella*. The test is performed with rectal swabs and stools, to aid in the diagnosis of *Salmonella* infections. Results can be interpreted after 18-24 h of aerobic incubation at 35-37 °C.

Concomitant cultures are necessary to recover organisms for further microbiological testing or epidemiological typing. A lack of growth or the absence of mauve colonies on CHROMagar™ Salmonella does not preclude the presence of *Salmonella.*

CHROMagar™ Salmonella is not intended to diagnose infection nor to guide nor monitor treatment for infections.

CHROMagar™ Salmonella can also be used in the detection of *Salmonella* in the analyses of food products for human consumption, animal feed and in environmental samples.

COMPOSITION

The product is composed of one single powder medium.

Product =	Pack
Total g/L	34.9 g/L
Composition g/L	Agar 15.0 Peptone and yeast extract 7.0 Chromogenic and selective mix 12.9
Aspect	Powder Form
STORAGE	**2/30 °C**
FINAL MEDIA pH	7.6 +/- 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

- Disperse slowly 34.9 g of powder 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 are replacing foam).

Advice 2: In case of product samples containing a high load of *Pseudomonas* and/or *Aeromonas*, Cefsulodin can be added at 5 mg/L.

Step 2
Pouring

- Cool down in a water bath to 45-50 °C.
- Swirl or stir gently to homogenize.
- Pour medium 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.

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SPECIMEN COLLECTION AND HANDLING

CHROMagar™ Salmonella can be used with the following specimens: rectal swabs and stools.

This medium can be also used in the detection of *Salmonella* in the analyses of food products for human consumption, animal feed and in environmental 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

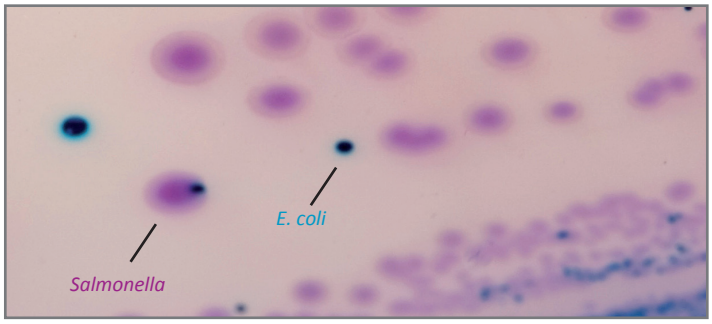
Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

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

INTERPRETATION

Microorganism	Typical colony appearance
Salmonella including *S.* Typhi	→ mauve
E. coli, coliforms etc.	→ blue
Some *Proteus*, etc.	→ colourless
Gram positive bacteria	→ inhibited
Pseudomonas, Aeromonas	→ mostly inhibited

Typical colony appearance



The pictures shown are not contractual.

PERFORMANCE

	Analytical data	Clinical data	
	CHROMagar™ Salmonella	CHROMagar™ Salmonella	Reference medium (Hektoen Agar)
Sensitivity	(81 %) and 93 % *	95 % **	80 %
Specificity	100 % *	88.9 % **	78.5 %

* In-house data obtained after a 24-48 h incubation at 37 °C in aerobic conditions. Sensitivity % in parenthesis includes lactose positive *Salmonella* species growing in blue. 2012.

** Data obtained after a 18-24 h incubation at 37 °C in aerobic conditions with 508 stool samples analyzed in the study "Comparison of CHROMagar™ Salmonella medium and Hektoen Enteric Agar for isolation of Salmonellae from stool samples". Gaillot *et al.*, 1998. *J. Clin. Microbiol.*

LIMITATIONS AND COMPLEMENTARY TESTS

- *Pseudomonas* may have similar mauve colony aspect and can be eliminated by an oxydase test.
- Many *Salmonella* Typhi can be detected after 24-48 h incubation as mauve variable size colonies.
- Lactose plus *Salmonella* would grow in metallic blue.
- Final identification must be done by biochemistry and serology (e.g. Latex agglutination test from Microgen), and can be performed directly from the plates on suspected 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
S. enteritidis ATCC® 13076	→ mauve
S. typhimurium ATCC® 13311	→ mauve
E. coli ATCC® 25922	→ metallic blue, small
C. freundii ATCC® 8090	→ metallic blue
S. aureus ATCC® 25923	→ 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 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: 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-042 USA V5.0 / 15-Apr-22

CHROMagar™
The Chromogenic Media Pioneer

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