



Technical Data Sheet

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Chromogenic Salmonella Agar

RDM-CSA-01

Principle

Chromogenic Salmonella Agar is a selective medium recommended for the simultaneous isolation and detection of *Salmonella* species from other coliforms. The media is composed of peptone, yeast extract, bile salt, chromogenic mixture, and agar. Peptone and yeast extract provide ample amounts of carbon, nitrogen, and essential amino acids, along with vitamins and trace minerals. Bile salt inhibits gram-positive organisms and agar is used as a solidifying agent. *Salmonella* is detected using a chromogenic mixture. Colonies of *Salmonella* form light purple color, and *E. coli* forms blue-colored colonies.

Use: Recommended for isolation and detection of *Salmonella* species.

Contents*

Ingredients	Gram/Liter
Peptone	7.000
Yeast Extract	3.000
Bile salt	1.000
Chromogenic Mixture	6.000
Agar	12.000
pH at 25°C	7.7 ± 0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 29.0 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. DO NOT OVERHEAT. Cool to 45-50°C. Mix well and distribute aseptically in petri plates and allow to solidify. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Water samples, Clinical and non-clinical samples.

Precautions to be taken

All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored, free-flowing, homogeneous
Reaction of 2.9% solution	7.7 ± 0.2 at 25°C
pH	7.5 - 7.90
Gelling	Firm comparable with 1.2% agar gel
Color and clarity of ready medium	Light amber, slightly opalescent gel

Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 24-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response: Cultural characteristics observed after an incubation at $35 \pm 2^\circ\text{C}$ for 24-48 hours. Inoculum 50-100 CFU.

Organism	ATCC	Growth	Recovery	Colony color
<i>Salmonella typhimurium</i>	14028	Luxuriant	$\geq 60\%$	Light purple
<i>Salmonella enteritidis</i>	13076	Luxuriant	$\geq 60\%$	Light purple
<i>Escherichia coli</i>	25922	Luxuriant	$\geq 60\%$	Blue
<i>Bacillus subtilis</i>	6633	Inhibited	--	--
<i>Staphylococcus aureus</i>	25923	Inhibited	--	--

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.

Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.
2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015), Manual of Clinical Microbiology, 11th Edition. Vol. 1 Wastewater, 23rd Ed., APHA, Washington, D.C.

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