



Technical Data Sheet

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Chromogenic Coliform Agar w/ SLS

RDM-CCA-02

Principle

Chromogenic Coliform Agar with SLS is a selective medium recommended for the simultaneous detection and recovery of total coliforms in water, food and clinical samples. The media is composed of peptone, sodium chloride, dipotassium hydrogen phosphate, potassium dihydrogen phosphate, sodium pyruvate, tryptophan, sodium lauryl sulphate, chromogenic substrates and agar. Peptone and sodium pyruvate provide nitrogenous substances and other essential growth nutrients for the organisms. Sodium chloride maintains osmotic balance. The L-Tryptophan improves the indole reaction thus increasing the revealing reliability. Dipotassium hydrogen phosphate, potassium dihydrogen phosphate buffers the medium. Sodium lauryl sulphate inhibits gram-positive organisms. The chromogenic substance imparts color to the organism, helps in detection of organism.

Use: Recommended a selective agar recommended for the simultaneous detection of *Escherichia coli* and total coliforms in water, food and clinical samples.

Contents*

Ingredients	Gram/Litre
Peptone	3.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	3.000
Potassium dihydrogen phosphate	1.700
Sodium pyruvate	1.000
L-Tryptophan	1.000
Sodium lauryl sulphate	1.100
Chromogenic mixture	0.200
Agar	12.000
pH at 25°C	6.8 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 27.00 grams in 1000 ml distilled water. Sterilize the media by autoclaving at 15lbs pressure and 121 °C for 15 minutes. Cool to 45-50°C and add 5 mg/l novobiocin, 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 - Water and wastewater.

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 2.7% solution	6.8 ±0.2 at 25 °C
pH	6.60- 7.00
Gelling	Firm comparable with 1.2% agar gel
Color and clarity of ready medium	Light amber, clear opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 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 33-37°C for 18-24 hours

Organism	ATCC	Growth	Recovery	Colony color
<i>Escherichia coli</i>	8739	Luxuriant	≥ 60%	Dark pinkish purple
<i>Shigella flexneri</i>	9199	Luxuriant	≥ 60%	Colorless
<i>Salmonella typhimurium</i>	14028	Luxuriant	≥ 60%	Colorless
<i>Klebsiella aerogenes</i>	13048	Luxuriant	≥ 60%	Light pink to pink
<i>Enterococcus faecalis</i>	14506	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

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2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and*
3. International Organization for Standardization (2014). *Water quality: Enumeration of E.coli and coliform bacteria. Part I Membrane filtration methods for bacteria with low bacterial background flora*. ISO 9308-1:2014.
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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