Chromatic Salmonella

Chromogenic medium for detection of *Salmonella* spp. from clinical specimens and other materials.

TYPICAL FORMULA	(g/l)
Proteose Peptone	7.0
Meat Extract	1.0
Yeast Extract	3.0
Sodium Chloride	5.0
Chromogenic Mix	3.7
Agar	15.0
Final pH 7.5 ± 0.2 at 25°C	

DESCRIPTION

Chromatic Salmonella is a chromogenic medium used with supplements for the isolation and differentiation of *Salmonella* species from different materials.

Clinical specimens such as stools and rectal swabs can be inoculated directly onto the agar plate.

This medium can also be used as second isolation agar in the four-step procedure described in EN ISO 6579-1 for detection of *Salmonella* in food, animal feed and environmental samples from the food production area including samples from the primary production stage such as animal faeces, dust and swabs.

PRINCIPLE

Proteose peptone and meat extract provide amino acids, nitrogen, carbon, minerals and vitamins essential for bacterial growth. Yeast extract is a source of vitamins, particularly of group B. Sodium chloride maintains the osmotic balance of the medium. The chromogenic mix allows the identification of bacteria on the basis of the colony colour. Agar is the solidifying agent.

The following supplements are added to the base medium:

- Chromatic Salmonella Selective Supplement (ref. 81102) to inhibit the growth of competing flora
- Tween 20 (ref. 80032) which enhances microbial growth

PREPARATION

Suspend 34.7 g of powder in 1 liter of deionized or distilled water. Add 3 ml of Tween 20. Bring to boil and shake until completely dissolved. Sterilize at 100°C for 5 minutes. Cool up to 45-50°C. Aseptically, add rehydrated contents of 2 vials (10 ml) of Chromatic Salmonella Selective Supplement. Mix well and pour in Petri dishes.

TECHNIQUE

Clinical specimens can be inoculated either by direct streaking or spread plating after enrichment in appropriate media such as Rappaport Vassiliadis Soy Broth (ref. 24400) or Selenite Broth (ref. 24100).

For testing of food samples, Chromatic Salmonella can be used according to EN ISO 6579-1 alongside XLD Agar (ref. 10251) after pre-enrichment in BPW (ref. 24099), followed by enrichment in RVS broth or MSRV agar (ref. 26478) and MKTTn broth (ref. 20072). For detailed instructions refer to the technical sheet of the medium being used.

Plates of Chromatic Salmonella are incubated at 36 ± 2°C for 24 ± 3 hours. An additional 24 h incubation may be required.

INTERPRETATION OF RESULTS

Examine for typical light mauve to mauve colonies of *Salmonella* spp, including *S*. Typhi, *S*. Paratyphi, lactose-positive, sucrose-positive.

E. coli, *Enterobcater* spp and *Klebsiella* spp form blue-green colonies.

Other organisms, if not inhibited will appear as colourless.

NOTES:

1. Certain strains of Gram-negative bacteria other than *Salmonella* may produce colonies resembling *Salmonella*. Complete identification must be performed with additional tests, such as Oxidase test (ref. 88029) to distinguish between *Salmonella* and rare strains of *Pseudomonas* which are able to growth on this medium with mauve colonies.
2. It is advisable to use Chromatic Salmonella in conjunction with additional media suitable for the material under examination.
3. Salmonella Latex Kit (ref. 96151) can be used as confirmatory test on suspected colonies directly from the plate.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until sings of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. it is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

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REFERENCES

1. EN ISO 6579-1:2017+DAM 1:2019. Microbiology of the food chain – Horizontal method for the detection, enumeration and serotyping of Salmonella – Part 1: Horizontal method for the detection of Salmonella spp.
2. D'Aoust, Mauer and Bailey. 2001. In Doyle, Beuchat, and Montville (ed.) Food microbiology: fundamentals and frontiers, 2nd ed. American Society for Microbiology, Washington, DC.
3. Bopp, Brenner, Wells and Strockbine. 1999. In Murray, Baron, Pfaller, Tenover and Yolken (ed.). Manual of clinical microbiology, 7th ed American Society for Microbiology, Washington, DC.

PRODUCT SPECIFICATIONS

NAME
Chromatic Salmonella

PRESENTATION
Dehydrated medium

STORAGE
10-30°C

PACKAGING

Ref.	Content	Packaging
610611	500 g	500 g of powder in plastic bottle
620611	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM
7.5 ± 0.2

USE
Chromatic Salmonella is a chromogenic medium used with supplements for the isolation of *Salmonella* from a wide variety of materials, including clinical specimens, foods and environmental samples

TECHNIQUE
Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM
Powder medium
Appearance: free-flowing, homogeneous,
Colour: beige
Ready-to-use medium
Appearance: clear
Colour: beige

SHELFLIFE
2 years

QUALITY CONTROL
1. Control of general characteristics, label and print
2. Microbiological control
   Supplement: Tween 20 and Chromatic Salmonella Selective Supplement
   Inoculum for productivity: 50-100 CFU
   Inoculum for selectivity: 10^4-10^6 CFU
   Incubation Conditions: 24 ± 3 h / 36 ± 2°C, in aerobic atmosphere

Microorganism		Growth	Colony Colour
Salmonella Typhimurium	ATCC® 14028	Good	Light mauve to mauve
Salmonella Enteritidis	ATCC® 13076	Good	Light mauve to mauve
Escherichia coli	ATCC® 25922	Good	Blue-green
Proteus mirabilis	ATCC® 25923	Partially to completely inhibited	Colourless
Pseudomonas aeruginosa	ATCC® 27853	Partially to completely inhibited	Colourless

TABLE OF SYMBOLS

LOT Batch code	IVD *In vitro* Diagnostic Medical Device	Manufacturer	Use by	Fragile, handle with care
REF Catalogue number	Temperature limitation	Contains sufficient for <n> tests	Caution, consult instructions for use	Keep away from heat sources

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