

SALMONELLA CHROMOGENIC AGAR

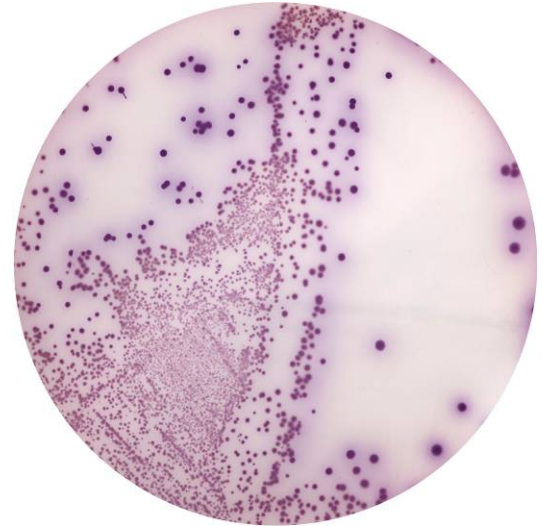
CAT N°: 1122

For the isolation of *Salmonella spp* in clinical samples and foods

FORMULA IN g/l

Sodium Citrate	8.50	Beef Extract	5.00
Chromogenic Mixture	5.81	Bacteriological Agar	12.80
Casein Peptone	5.00		

Final pH 7.2 ± 0.2 at 25°C



Salmonella enteritidis
ATCC 13076

PREPARATION

Suspend 37.1 grams of the medium in one liter of distilled water at 80°C. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. AVOID OVERHEATING. DO NOT AUTOCLAVE. Cool to 45-50°C and, if desired, aseptically add two vials of Salmonella Chromogenic Agar Supplement (Cat. 6043) previously reconstituted in 5 ml of steril distilled water. Pour into Petri dishes. The prepared medium should be stored at 8-15°C. The color is amber, slightly opalescent. It is recommended to prepare the plates on the same day of their use.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

SALMONELLA CHROMOGENIC AGAR SUPPLEMENT (Cat.6043)

(1 vial for 500 ml of the medium)

Antibiotic mixture.....8.5 mg

USES

SALMONELLA CHROMOGENIC AGAR is a selective chromogenic medium, used for the detection and presumptive identification of *Salmonella* species from clinical samples, foods and waters. The media traditionally used to differentiate species of *Salmonella* from the rest of the Enterobacteriaceae family, based on their capacity to produce hydrogen sulfide and their inability to ferment lactose, are not really adequate as there are more than 2000 species of *Salmonella* which do not have these characteristics.

Casein peptone and Beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Chromogenic mixture, in conjunction with Sodium citrate, aids in inhibiting Gram-positive organisms and *Proteus* and coliforms. Bacteriological agar is the solidifying agent. The addition of the supplement inhibit accompanying flora, avoiding possible false positive results.

To identify *Salmonella* species, this chromogenic agent is based on the combination of two chromogenic substrates that ease quick identification. Magenta colonies are a result of the hydrolysis of one of the chromogenic substrate by the *Salmonella* species due to the inability to utilise another chromogenic substrate. Microorganisms producing the enzyme that cleaves the second chromogenic substrate will produce Blue-green colonies. Thus, non-*Salmonella* organisms appear blue-green or are not stained by any of the chromogenes of the medium.

Inoculate with the sample and incubate at 35 ± 2°C for 18 – 24 hours.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of $35 \pm 2^\circ\text{C}$ and observed after 18-24 hours.

Microorganisms	Growth	Colony color
<i>Escherichia coli</i> ATCC 25922	Partially inhibited	Blue-green
<i>Salmonella enteritidis</i> ATCC 13076	Good	Magenta
<i>Salmonella typhi</i> ATCC 19430	Good	Magenta
<i>Salmonella typhimurium</i> ATCC 14028	Good	Magenta
<i>Proteus vulgaris</i> ATCC 13315	Inhibited	Colorless
<i>Salmonella lactose</i> (+)	Good	Magenta

BIBLIOGRAPHY

Journal Clinical Microbiology, Vol. 41 n° 7 p. 3229-3232. July 2003 Robert Cassar and Paul Cuschieri.

J.D. Perry, Michael Furs, Jeffrey Taylor, Et. Al. Journal Clinical Microbiology, March 1999, pag. 766-768 Vol. 37. n° 3

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STORAGE

Once opened keep powdered medium closed to avoid hydration.

