

## SALMONELLA CHROMOGENIC AGAR

**(ISO 6579-1)**
**IVD in Class A, EU Reg. 2017/746**

 For in vitro diagnostic use **IVD**

Chromogenic medium for detection of Salmonella spp from clinical and not clinical samples.

### DESCRIPTION

Salmonella Chromogenic Agar is a selective and differential medium for the isolation and presumptive identification of Salmonella species from different materials.

### PRINCIPLE

Tryptone and meat extract provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Sodium chloride maintains the osmotic balance of the medium. Chromogenic and selective mix allows to identify microorganisms on the basis of the color and morphology of the colonies while inhibiting most contaminant flora.

COMPOSITION	g/L
Casein peptone	5.0
Meat Extract	5.0
Sodium citrate	8.5
Chromogenic Mix	5.8
Agar	13.0

**Final pH 7,2 ± 0,2 at 25°C**

### WARNING AND PRECAUTIONS

**For in vitro diagnostic use.**

Observe the precautions normally taken when handling laboratory reagents.

**Dehydrated medium: HIGHLY HYGROSCOPIC.** During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

**Prepared Medium:** The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

**Safety Data Sheet** is available on request for professional users.

All waste must be disposed of according to local directives.

### STORAGE AND STABILITY

<b>Dehydrated medium:</b>	2-8°C
<b>Prepared medium:</b>	2-8°C

SALMONELLA CHROMOGENIC AGAR is stable until the expiration date indicated on the label under the recommended storage conditions.

### PREPARATION

**Dehydrated medium:** Suspend 37.3 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. **DO NOT OVERHEAT. DO NOT AUTOCLAVE.** Cool to approximately 50°C and distribute in sterile petri dishes. Final pH: 7.2±0.2 at 25°C.

**Selective medium:** Cool and keep the medium at 50°C. Aseptically add the contents of each bottle of Salmonella Selective Supplement (Ref. 16078). Mix well and pour into sterile petri dishes. Final pH 7.2 ± 0.2 at 25°C.

**Prepared medium (bottles):** Melt the content of the bottle in a water bath at 100°C until completely dissolved. Then screw the cap and check the homogeneity of the dissolved medium, if it is the case turning the bottle upside down. Cool at 45-50°C, mix well avoiding foam formation and aseptically distribute into Petri dishes.

### PROCEDURE

For clinical specimens: As soon as possible after receipt in the laboratory, inoculate the specimen onto a Salmonella Chromogenic Agar plate and streak for isolation. If the specimen is cultured from a swab, roll the swab gently over a small area of the surface at the edge, then streak from this area with a loop. Depending on local procedures, inoculation of additional media for the isolation of Salmonella and for the detection of other enteric pathogens may be mandatory. Incubate plates aerobically at 35 ± 2 ° C in an inverted position (agar-side up) for 24 h. If negative at 24 h, reincubate for an additional 24 h to report final results. Typical colonies of Salmonella should be subjected to confirmatory biochemical or serological testing. Salmonella Chromogenic Agar may also be used for subculturing from pre-enrichment media such as Selenite Broth or Tetrathionate Broth.

For testing of food samples, Salmonella Chromogenic Agar can be used according to EN ISO 6579-1 alongside XLD Agar after pre-enrichment in Buffered

Peptone Water, followed by enrichment in RVS broth or MSRV agar and MKTTn broth.

For water testing, 60 mm ready-to-use plates can be used with the membrane filter technique.

Plates of Salmonella Chromogenic agar are incubated at 35 ± 2°C for 18-24 hours. An additional 24 h incubation may be required.

### RESULTS

After incubation observe the color and the morphology of the colonies and interpret the results as indicated in the table. To confirm presumptive colonies as Salmonella spp, subculture to a non-selective Nutrient Agar before performing appropriate biochemical and serological tests.

MICROORGANISM	TYPICAL COLONY COLOR
E.coli	Blue-green
Salmonella spp.	Magenta
Proteus mirabilis	Colorless

### QUALITY CONTROL

**Dehydrated medium:** free-flowing, homogeneous, beige.

**Prepared medium:** clear to slightly opalescent, amber agar.

**Typical response after incubation at 37°C for 24 hours:**

MICROORGANISM	GROWTH/COLONY COLOR
Escherichia coli ATCC 25922	Partial inhibition / Blue-Green
Salmonella enteritidis ATCC 13076	Good / Magenta
Salmonella typhi ATCC 19430	Good / Magenta
Salmonella typhimurium ATCC 14028	Good / Magenta
Proteus vulgaris ATCC 25933	Partial or total inhibition / Incolore

### REFERENCES

- 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
- Gallioti di camillo, p. Et. Al. (J. Clinil Microbiol. March 1999.
- UNI EN ISO 6579-1:2017 Microbiology od food and animal feeding stuffs. Horizontal method for the detection of Salmonella spp.
- UNI EN ISO 6579-1:2020 - Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp.

PRESENTATION	Packaging	REF.
<b>Dehydrated medium:</b> <b>SALMONELLA CHROMOGENIC AGAR</b>	100 g	11158
	500 g	10158
<b>Supplement</b> <b>SALMONELLA SELECTIVE SUPPLEMENT</b>	10 Bottles	16078
	One bottle of supplement is used to prepare 500ml of enrichment medium. For each 500 g pack of Salmonella Chromogenic Agar Base Ref. 10158 approximately 3 packs of supplement Ref. 16078 are required.	
<b>Prepared medium:</b> <b>SALMONELLA CHROMOGENIC AGAR</b>	6 x 100 mL bottles	63364
	20 pcs(90 mm ready-to-use plates)	2692102/20

### SYMBOLS

	Read the instructions		Biological hazard
	CE Mark (product complies with the requirements of Regulation (EU) 746/2017)		
	Temperature limitation		Use by
	For in vitro diagnostic use		Manufacturer