SALMONELLA SHIGELLA AGAR WITH SODIUM DESOXYCHOLATE AND CALCIUM CHLORIDE (SSDC) ISO 10273

CAT Nº: 1360

Selective medium for the isolation and orientative differentiation of *Yersinia enterocolitica*

FORMULA IN g/l

Lactose	10.0	Meat Extract	5.0
Sodium Citrate	10.0	Calcium Chloride	1.0
Sodium Desoxycholate	10.0	Iron (III) Citrate	1.0
Bile Salts	8.5	Neutral Red	0.025
*Sodium Thiosulfate Anhydrous	5.42	Brilliant Green	0.0003
Enzymatic Digest of Animal Tissues	5.0	Bacteriological Agar	15.0
Yeast Extract	5.0		
* Equivalent to 8.5 gr of Sodium Thiosulfate Pentahydrated			

Final pH 7.4 ± 0.2 at 25°C

PREPARATION

Suspend 76 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution AVOID OVERHEATING. DO NOT AUTOCLAVE. Dispense into appropriate containers. The prepared medium should be stored at 8-15°C. The color of the prepared medium is red-orange.

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

USES

SALMONELLA SHIGELLA AGAR WITH SODIUM DESOXYCHOLATE AND CALCIUM CHLORIDE (SSDC) is used for the isolation and orientative differentiation of *Yersinia enterocolitica* recommended by ISO 10273 normative.

Enzymatic digest of casein and Meat peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Lactose is the fermentable carbohydrate providing carbon and energy. Sodium citrate, Anhydrous sodium thiosulfate and Sodium desoxycholate, Bile salts and Brilliant green are selective agents. Calcium chloride provides trace elements necessary for bacterial growth. Iron (III) Citrate is a H_2S indicators. Neutral red is a pH indicator. Bacteriological agar is the solidifying agent.

After the enrichment in Irgasan Ticarcillin Potassium Chlorate Broth (Itc) Base (Cat. 1361) at 25ºC during 48ºC, inoculate on SSDC plates to obtain well separated colonies. Incubate at 30ºC during 24-48 hours. characteristic colonies of *Yersinia enterocolitica* are small (u 1 mm) and grey with an indistinct rim, non-iridescent and very finely granular when examined with obliquely transmitted light. Confirm 5 of the characteristic or suspicious colonies.

NOTE: If the development of colonies is slow, if coloration is weak, or if there are no characteristic colonies, continue incubation of the plates for up to 48 h, then re-examine them.

MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium after incubation at a temperature of 30ºC and observed after 24-48 hours.

Microorganisms	Growth
Yersinia enterocolitica ATCC 23715	Good
Yersinia enterocolitica ATCC 9610	Good
Escherichia coli ATCC 25922	Inhibited
Bacillus cereus ATCC 11778	Inhibited

According ISO 11133 Productivity and Selectivity (21±3) h (30±1ºC)

Microorganisms	Inoculum (cfu/ml)	Selectivity Qualitative	Productivity Qualitative
Escherichia coli ATCC 25922	10^4-10^6	Total or partial inhibition	
Staphylococcus aureus ATCC 25923	10^4-10^6	Total inhibition	
Yersinia enterocolitica ATCC 27729	10^4-10^6		Good groth

BIBLIOGRAPHY

ISO 10273 Microbiology of Food and animal feeding stuffs- Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica.*

STORAGE

Once opened keep powdered medium closed to avoid hydration.