

Technical Information

SSDC Agar(Salmonella Shigella Agar with Deoxycholate and Calcium chloride)

Product Code: DM 2703

Application: - SSDC agar is used for the selective isolation and differentiation of pathogenic *Yersinia enterocolitica*, in particular of *Y. enterocolitica* serogroup O:3.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Yeast extract	5.000
Lactose	10.000
Bile salt mixture	8.500
Sodium deoxycholate	10.000
Calcium chloride	1.000
Sodium citrate	10.000
Sodium thiosulphate, anhydrous	5.420
Ammonium Iron (III) citrate	1.000
Brilliant green	0.0003
Neutral red	0.025
Agar	15.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

SSDC Agar is suggested for detection of presumptive pathogenic *Yersinia enterocolitica* in accordance with ISO Committee under specifications 10273:1994 (1). Peptic digest of animal tissue, yeast extract supplies essential growth nutrients. Lactose act as fermentable carbohydrate. Lactose positive organisms appear red due to lactose fermentation and neutral red indicator. Brilliant green, bile salts and thiosulphate selectively inhibit gram positive and coliform organisms. Certain species of enteric organisms reduce sodium thiosulphate to sulphite and H₂S gas. *Yersinia enterocolitica* colonies appear as colourless colonies. Pathogenic *Y. enterocolitica* strains, in particular those of serogroup O:3 are known to tolerate high concentration of bile salts and deoxycholate. Due to the high content of bile salts along with the high sodium citrate concentration and the brilliant green content other accompanying microbial flora gets almost completely or completely inhibited.

Methodology

Suspend 75.94 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat to boil by swirling regularly to dissolve the medium completely. DO NOT AUTOCLAVE OR DO NOT OVERHEAT. Cool the medium to about 50°C in water bath. Shake well before pour into sterile Petri plates. To avoid precipitation of bile salts, do not exceed the cooling phase for more than one hour.

Quality Control

Appearance

Light yellow to pink homogeneous free flowing powder.

Gelling

Firm comparable with 1.5% Agar gel.

Colour and Clarity

Orange red coloured, clear to slightly opalescent gel forms in Petri plates.



Dehydrated Culture Media
Bases / Media Supplements

Reaction

Reaction of 7.59% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH Range

7.20-7.60

Cultural Response

DM 2703: Cultural characteristics observed after an incubation at 25-30°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Yersinia enterocolitica</i> 0.3 DSM 11502	50-100	good-luxuriant	>=50%	colourless round colonies, approximately 1mm diameter. A finely granulated centre can be seen under 10X magnification
<i>Yersinia enterocolitica</i> 0.3 DSM 9676	50-100	good-luxuriant	>=50%	colourless round colonies, approximately 1mm diameter. A finely granulated centre can be seen under 10X magnification
<i>Escherichia coli</i> ATCC 25922	>=10 ³	inhibited	0%	-
<i>Bacillus cereus</i> ATCC 10876	>=10 ³	inhibited	0%	-

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. International Organization For Standardization (ISO), 1994, Draft ISO/DIS 10273.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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