PRODUCT CODE: 495576

TSC Agar Base (ISO 14189, 7937) (Prepared Bottles) for microbiology

Specification

Solid selective and differential medium for isolation and presumptive identification of Clostridium perfringens, according to ISO Standards and other regulations.

Presentation

10 Prepared bottles	Packaging Details	Shelf life	Storage
Bottle 125 ml with: 100 ± 3 ml.	1 box with 10 bottles 125 ml. Non injectable cap.	12 months	8-25ºC

Description and Technique

Description

The medium is a modification of the classical TSN Agar in which the traditional antibiotics, polymyxin and neomycin have been replaced by cycloserine. Cycloserine has been found more selective for *Clostridium perfringens*, and reduces the production of diffuse blackening.

Clostridium perfringens is more resistant to cycloserine than to sulfadiazine, polymyxin and neomycin, hence reducing the dosage.

The presence of sodium meta-bisulfite and ferric ammonium citrate allow three differential characteristics of this anaerobic species to be verified with just one assay. These characteristics are sulfite reduction, growth at 46°C and cycloserine resistance.

Cycloserine does not tolerate temperatures above 100°C and its stability in a solution is variable. Therefore, it is advisable to prepare the exact number of plates that are going to be used.

Technique

To use, the contents of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath (100ºC) or microwave oven.

Add the Cycloserine at a concentration of 400 mg / L, before pouring the culture medium on the plates or tubes. Never apply direct heat to melt a medium. The melting temperatures and times depend on the shape of the container, the volume of medium and the heat source.

Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting.

Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques.

To inoculate, follow standard laboratory methods or the applicable norms. Spiral plate method, streak plating, econometric methods, dilution banks, spread plating etc...

The standard procedure recommends surface inoculation of the samples or their dilutions, and once absorbed, to pour a second layer as a seal for anaerobiosis.

After incubation at 44±1ºC for 20-24 hours, proceed to enumerate the black colonies that appear in the plate.

Quality control

Physical/Chemical control	Microbiological control	Sterility control
Color: Straw-coloured yellow pH: 7.6 ± 0.2 at 25ºC	Before addition of Cycloserine; Quality control according to ISO 11133:2014 Melt Medium - Prepare Plates - Spiral Spreading: Practical range 100±20 CFU; Min. 50 CFU (Productivity) Anaerobiosis. Incubation at 44 ± 1 ºC during 20 -24 h.	Incubation 48 hours at 30-35ºC and 48 hours at 20-25ºC: NO GROWTH Check at 7 days after incubation in same conditions

Microorganism	Growth
Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237	Good. Black colonies
Clostridium perfringens ATCC® 10543, WDCM 00174	Good. Black colonies
Bacillus subtilis ATCC® 6633, WDCM 00003	Inhibited

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