Specification

Solid selective medium for the isolation of Gram negative bacteria from clinical specimens.

Formula * in g/L

Peptone	15,000
Meat Extract	3,000
Yeast Extract	3,000
Sodium Desoxycholate	1,000
Sodium Thiosulphate	1,000
Lactose	15,000
Brom Thymol Blue	0,080
Crystal Violet	0,005
Agar	15,000

Final pH 7,4± 0,2 at 25 ºC

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 53 g of the powder in 1 L of distilled water and heat to the boil or complete dissolution. Distribute in suitable containers and sterilize in autoclave at 115ºC for 15 minutes.

Description

Drigalski Lactose Agar is a selective medium used for the isolation of gram-negative bacteria from clinical specimens and the detection of coliforms in food products. The gram-positive bacteria are inhibited by sodium desoxycholate and crystal violet, but the selectivity of this medium is less effective than McConkey Agar and thus, some times, minute enterococci colonies may be seen. The gram-negative bacteria grow with different characteristics depending on their ability to ferment lactose. Coliform organisms (*Escherichia, Klebsiella, Citrobacter, Enterobacter*) ferment lactose with production of acids that turns the indicator to yellow and the colonies appears yellow.
Gram-negative lactose non-fermenting bacteria (*Salmonella, Shigella, Proteus, Providencia, Hafnia, Serratia, Morganella, Edwarsiella, Alcaligenes, Pseudomonas*) grow producing green-blue colonies.
Yersinia produces minute green-blue colonies after 24 h of incubation at 37ºC. To isolate them it is advisable a supplementary 24 h incubation at 30ºC.
The swarming of certain *Proteus* strains is only partially inhibited in the Drigalski Agar. If their presence is suspected, deposit 1-2 drops of alcohol in the cover of the Petri dish just before inoculating. Alcohol vapours limit the invasion but have no effect on the growth of enterobacteria.

Quality control

Incubation temperature: 35-37 ºC **Incubation time:** 24-48h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) / 10^4-10^6 CFU (Selectivity) according to ISO 11133:2014/Amd 1:2018 .

Microorganism	Growth	Remarks
Enterococcus faecalis ATCC® 29212	Inhibed to poor	-
Yersinia enterocolitica ATCC® 9610	Productivity > 0.50	Green- blue puntiform colonies
Escherichia coli ATCC® 25922	Productivity > 0.50	Yellow colonies
Escherichia coli ATCC® 8739	Productivity > 0.50	Yellow colonies
Salmonella typhimurium ATCC® 14028	Productivity > 0.50	Green- blue colonies
Citrobacter freundii ATCC® 43864	Productivity > 0.50	Yellow colonies

References

· Ewing, W. H. (1986) Edwards and Ewing's Identification of Enterobacteriaceae. 4th edition. Elsevier Science Publication Co. Inc. New York. USA

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 ºC to 30 ºC).