Specification

Liquid culture medium for the selective enrichment of pathogenic Yersinia enterocolitica according to ISO 10273 standard.

Formula * in g/L	
Enzymatic digest of casein	
Yeast extract	1.000
Magnesium chloride	
(anhydrous)	
Sodium chloride	5.000
Malachite green	0.010
Potassium Chlorate	1.000

Final pH 6.9 ±0,2 at 25 °C

(*1) Equivalent to 60.0 g of MgCl₂.6H₂0

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

Directions

Dissolve 45.11 g of the powder in 1 liter of distilled water and sterilize in the autoclave for 15 minutes at 121 ° C. It is allowed to cool to 50 °C and add 1 ml of a sterile solution of Ticarcillin and Triclosan (Irgasan®) at 0,1%. Homogenize and distribute in suitable containers trying to minimize contact with air (relative anaerobiosis).

Description

This medium was originally formulated by Wauter *et al.*, starting from the enrichment broth for salmonellae from Rappaport et al., to which they modified the proportions of magnesium chloride and malachite green and added potasium chlorate that inhibits the growth of nitratase A-producing enterobacteria. The selectivity for *Yersinia enterocolitica* is achieved with the inclusion of triclosan (Irgasan®) that acts against gram-positive microorganisms and tricarcillin, an antibiotic that interferes with the formation of bacterial cell walls.

This medium works very well to detect the *Y. enterocolitica* pathogens of biotype 4 and serotype O:3, but it is not suitable for detecting other serotypes.

Technique

Proceed according to current national or international standards, established and tested protocols or according to the procedures established and accepted in each laboratory.

Quality control

Incubation temperature: 25±1 °C

Incubation time: 44±4h

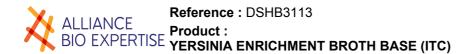
Remarks

Inoculum: Practical range 50 - 100 CFU (Productivity)/ 10⁴-10⁶ CFU (Selectivity) according to ISO 11133:2014/ Amd 1:2018

Microorganism

od > 10 CFU in CIN Agar
al Inhibited -
al Inhibited -
tial/ total Inhibied <10 CFU in TSA

Growth



References

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Storage

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