

**PRODUCT CODE: 455523**

## **Bile Esculine Azide Agar (ISO 7899-2:2001) for microbiology**

### **Specification**

Solid medium for the confirmation and enumeration of enterococci in water by the membrane filtration method according to ISO 7899-2.

### **Presentation**

<b>20 Prepared Plates</b>	<b>Packaging Details</b>	<b>Shelf life</b>	<b>Storage</b>
90 mm with: 22 ± 1 ml	1 box with 2 packs of 10 plates/pack. Single cellophane.	3 months	2-14°C

### **Description and Technique**

#### *Description*

Bile Esculin Azide Medium is a modification of the classical Bile Esculin proposed by Isenberg, Goldberg and Sampson in 1970, but with a reduction in the amount of bile and the addition of sodium azide. Brodsky and Schieman showed that this medium, also known as Pfizer Enterococci Selective Medium gave the best results using the membrane filtration technique.

The actual formulation according to the ISO Standard 7899-2:2000 is used for the second step in the confirmation and enumeration of enterococci in water by the membrane filtration method.

The colonies previously selected in the Slanetz Bartley Agar (Codes 413812 or 443812) must be confirmed by a short incubation on Bile Esculin Azide Medium for verification of esculin hydrolysis in a selective environment.

#### *Technique*

After an incubation of 24-48 hours on Slanetz Bartley Agar, the membrane filter showing typical colonies is transferred, with sterile forceps in an upright position, to a pre-warmed plate of Bile Esculin Azide Agar. After two hours of incubation at 44 ± 0.5°C the membrane filter is inspected. All the typical colonies that show brown to black colour in the surrounding medium are considered positive and therefore intestinal enterococci.

A heterogeneous distribution of the colonies or the presence of abundant and different microorganisms can interfere with the differentiation of positive colonies.

After incubation, enumerate all the colonies that have appeared onto the surface of the agar. Typical colonies of *Enterococcus sp.* show a brown to black coloured halo.

Each laboratory must evaluate the results according to their specifications. Presumptive isolation of *Enterococcus* must be confirmed with further microbiological and biochemical tests.

## Quality control

Physical/Chemical control	Microbiological control	Sterility control
Color: Yellow pH: 7.1 ± 0.1 at 25°C	Spiral Spreading: Practical range 100±20 CFU; Min. 50 CFU (Productivity) / 104 -106 CFU (Selectivity).  Incubation at 37 ± 2°C for 24-48 h.  Aerobic: Incubation at 44 °C, for 2h. Esculine Test.	Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH  Check at 7 days after incubation in same conditions
Microorganism	Growth	
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Good - Esculin Positive reaction	
<i>Escherichia coli</i> ATCC® 25922, WDCM 00013	Inhibited	
<i>Enterococcus faecalis</i> ATCC® 29212, WDCM 00087	Good - Esculin Positive reaction	
<i>Enterococcus faecium</i> ATCC® 6057, WDCM 00177	Good - Esculin Positive reaction	

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