

**Product :**
BILE ESCULIN MODIFIED AGAR**Also known as**

Bile Esculin Medium; BEM; Bile Esculin Agar

Specification

Solid culture medium for identification of streptococci in food and clinical samples.

Formula * in g/L

Meat extract..... 3,0
 Peptone..... 5,0
 Bile salts 20,0
 Ferric citrate..... 0,5
 Esculin..... 1,0
 Agar..... 15,0

Final pH 7,0 ±0,2 at 25 °C

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

Directions

Suspend 44,5 g of powder in 1 L of distilled water and let soak. Bring to the boil and distribute into containers. Sterilize in the autoclave at 121°C for 15 minutes.

Description

This medium formulation is based on the modification by Facklam and Moody of the original formulation by Swan to verify the esculin hydrolysing capacity of streptococci and their resistance to bile salts which inhibit Gram positive bacteria.

In fact, this medium can be used as a substitute KAA Confirmative Agar (Art. No. 01-263), but as it does not have the same selectivity. It is used as a substrate to verify the two assays simultaneously in the biochemical tests that identify enterococci.

Technique

The assay is performed by inoculating the surface of a slant with a pure culture of the organism to be verified. After the 24 - 44 hours incubation at 36°C±2, it may produce translucent colonies, surrounded by black haloes or zones, due to esculin hydrolysis. Resistance to bile salts is indicated by the growth.

Quality control**Incubation temperature:** 36°C ±2.0**Incubation time:** 24 - 44h ±4**Inoculum:** Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) ≥ 10³ CFU (specification) according to ISO 11133:2014/Amd 1:2018 .**Microorganism***Escherichia coli* ATCC® 25922*Enterococcus faecalis* ATCC® 29212*Enterococcus faecalis* ATCC® 19433**Growth**

Good

Productivity > 0.70

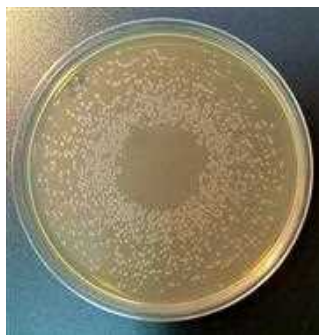
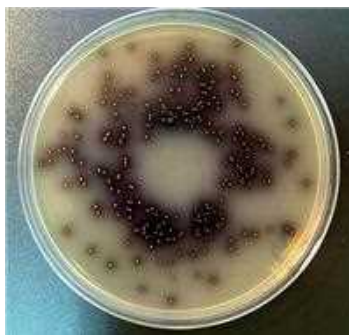
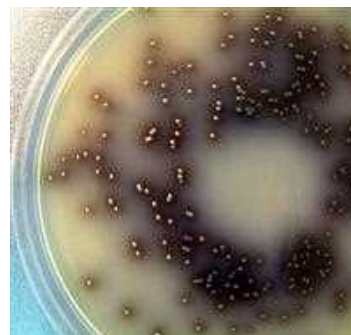
Productivity > 0.70

Remarks

White colonies (Esculin -)

Brown to black colonies (Esculin +)

Brown to black colonies (Esculin +)

*Escherichia coli* ATCC 25922*Enterococcus faecalis* ATCC 29212*Enterococcus faecalis* ATCC 29212
"Detail"



Reference : 01-265

Scharlau Microbiology - Technical data sheet

Product :
BILE ESCULIN MODIFIED AGAR

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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).