



## Bile Esculin Azide-Agar

Version: 07/2022  
M&S item numbers: 5250 (25 x 20 ml) and 5251 (4 x 250 ml)  
Profile: Glass tubes and polycarbonate bottles  
Color: Brownish  
Storage: Dark and dry at 4 – 12 °C  
Shelf life: 8 months after production

### Description and application range

Bile Esculin Azide-Agar is used for the detection and enumeration of intestinal Enterococci in drinking water, wastewater and other samples. The formulation complies with DIN EN ISO 7899-2:2000. Positive bacteria hydrolyze esculin to dextrose and esculetin, which reacts with ferric citrate to a brown to black complex. Azide and bile salts serve as inhibitors for accompanying bacteria. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd. 2:2020 standard.

### Typical composition

Enzymatic digest of casein	20.0 g/l
Yeast extract	5.0 g/l
Bile salts	10.0 g/l
Sodium chloride	5.0 g/l
Esculin	1.0 g/l
Ammonium ferric citrate	0.5 g/l
Sodium azide	0.15 g/l
Bacteriological Agar	15.0 g/l

Final pH: 7.1 ± 0.2 at 25 °C

### Microbiological quality control

#### Bacterial contamination

Incubation: aerobically at room temperature for 3 days, specification: no growth

#### Productivity quantitative analysis

Incubation: aerobically at 44 ± 0.5 °C for 2 - 4 h

Microorganism	Test strain	Specification	Appearance
<i>Enterococcus faecalis</i>	WDCM 00009	Color change to dark-brown-black	Black colored
<i>Enterococcus faecalis</i>	WDCM 00087	Color change to dark-brown-black	Black colored
<i>Enterococcus faecium</i>	WDCM 00177	Color change to dark-brown-black	Dark-brown colored



**Selectivity** qualitative analysis

Incubation: aerobically at  $44 \pm 0.5$  °C for 4 h

Microorganism	Test strain	Specification	Appearance
<i>Escherichia coli</i>	WDCM 00012	No growth	No growth
<i>Escherichia coli</i>	WDCM 00179	No color change to brown or black	No color reaction



Pure culture of *Enterococcus faecalis* after 12 hours at 44 °C