
Product Name : BILE ESCULIN AZIDE AGAR

Selective medium for group D streptococci isolation in foods and pharmaceutical products.

TYPICAL FORMULA (g/l)

Tryptone	17.0
Peptone	3.0
Yeast Extract	5.0
Oxgall	10.0
Sodium Chloride	5.0
Esculin	1.0
Ferric Ammonium Citrate	0.5
Sodium Azide	0.15
Agar	15.0
Final pH = 7.1 ± 0.1 at 25°C.	

DIRECTIONS

Suspend 56.7 g of powder in 1 litre of distilled or deionized water. Heat until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C. Dispense in tubes, bottles or flasks, as appropriate.

DESCRIPTION

BILE ESCULIN AZIDE AGAR is a selective medium for isolating Group D streptococci in foods and pharmaceutical products. It is suggested also for enumeration of faecal enterococci in water.

TECHNIQUE

For isolation of Group D streptococci, inoculate the sample onto a small area of one quadrant of a Bile Aesculin Azide Agar plate and streak for isolation. This will permit development of discrete colonies. Incubate at 36 ± 1°C for 18-24 hours. Group D streptococci grow readily on this medium and hydrolyze esculin, resulting in a dark brown colour around the colonies after 18-24 hours incubation.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Colour: light to medium beige.

Prepared medium

Appearance: slightly opalescent.

Colour: medium to dark amber.

Incubation conditions: 36 ± 1°C / 18-24 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Enterococcus faecalis</i>	19433	good	Esculin hydrolysis, blackening
<i>Escherichia coli</i>	25922	none	

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PERFORMANCE AND LIMITATIONS

The bile esculin test was originally formulated to identify enterococci: the properties of growth on 40% bile media and esculin hydrolysis are characteristics shared by most strains of Group D streptococci. The bile esculin test should be used in combination with other tests to make a positive identification.

PRECAUTIONS

Bile esculin Azide Agar contains sodium azide. This substance is harmful by inhalation and if swallowed, irritating to eyes, respiratory system and skin. Consult safety data sheet for further details. Sodium azide reacts with many metals, especially copper, to produce explosive metal azides.

STORAGE

The powder is very hygroscopic: store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared tubes at 2-8°C.

REFERENCES

1. Isenberg, H.D., D. Goldberg, and J. Sampson. (1970). Appl. Micro., 20, 433-436.
2. ISO/FDIS 7899-2: 2000. Water Quality – Detection and enumeration of intestinal enterococci.
3. NCCLS document M22-A2, 1996. Approved Standard.

PACKAGING

Cat. NO MB-B1001 BILE ESCULIN AZIDE AGAR	500 g
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