

Esculin Agar

Medium used for the identification and determination of Enterococci on the basis of esculin hydrolysis.

• CONTENTS (Liter)

Peptone	18.0 g
Esculin	1.0 g
Ferric Citrate	1.0 g
Agar	15.0 g
Final pH = 7.2 ± 0.2 at 25°C	

• PROCEDURE

Suspend 35.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

• INTERPRETATION

Esculin Agar is a medium used for the identification and determination of Enterococci on the basis of esculin hydrolysis. Peptone provides nitrogen, carbon, vitamins and minerals. Esculin is hydrolyzed to esculetin and dextrose by enterococci. Esculetin reacts with ferric citrate and forms a zone of black or dark brown precipitate around the colonies. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: clear to slightly opalescent

Color: amber

Incubation conditions: 35 ± 2°C / 18 - 24 hours

Microorganism	ATCC	Inoculum CFU	Growth	Esculin Hydrolysis
<i>Enterococcus faecalis</i>	29212	50-100	good	+ (blackening)
<i>Enterococcus faecium</i>	19434	50-100	good	+ (blackening)
<i>Escherichia coli</i>	25922	50-100	good	-

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol
2. Facklam, R.R., D.F. Sahn, and L.M. Teixeira. 1999. Enterococcus, p. 297-305. In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (ed.), Manual of clinical microbiology, 7th ed. American Society for Microbiology, Washington, D.C.
3. MacFaddin, J.F. 2000. Biochemical tests for identification of medical bacteria, 3rd ed. Lippincott Williams & Wilkins, Baltimore.
4. Murray, P.R., E.J. Baron, J.H. Tenover, M.A. Pfaller, and R. H. Tenover (ed.). 2003. Manual of clinical microbiology, 8th ed. American Society for Microbiology, Washington, D.C.
5. Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol

• PACKAGE

Cat. No : MB-E2166 Esculin Agar	500 G
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• MICROBIAL CULTURE IMAGES



Enterococcus faecium ATCC 19434



Enterococcus faecalis ATCC 29212



Escherichia coli ATCC 25922

Incubation conditions : 35 ± 2°C 18 - 24 hours