

Esculin Broth

Medium used for the detection of esculin hydrolysis by microorganisms.

• CONTENTS (Liter)

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

• PROCEDURE

Suspend 20.0 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. Dispense in tubes.

• INTERPRETATION

Esculin Broth is a medium used for the detection of esculin hydrolysis by microorganisms. Peptone provides nitrogen, carbon, vitamins and minerals. Esculin is hydrolyzed to esculetin and dextrose. Esculin reacts with ferric citrate and forms a zone of black or dark brown precipitate around the colonies.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. 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	+
<i>Enterococcus faecium</i>	19434	50-100	good	+
<i>Streptococcus mutans</i>	25175	50-100	good	-
<i>Streptococcus pneumoniae</i>	6305	50-100	good	-
<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 or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

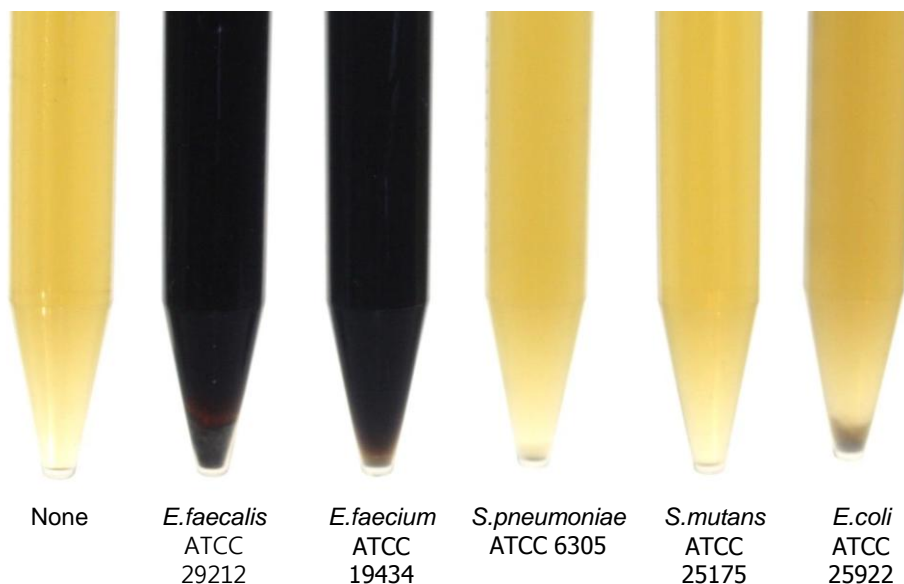
• REFERENCES

1. Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol
2. Facklam, R.R., D.F. Sahm, 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. Jorgensen, 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-E2167 Esculin Broth	500 G
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• MICROBIAL CULTURE IMAGES



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