

Arginine Decarboxylase Broth



Medium used for the identification and determination of organisms on the basis of arginine decarboxylation.

• CONTENTS (Liter)

Peptone	5.0 g
Beef Extract	5.0 g
Dextrose	0.5 g
Bromocresol Purple	0.01 g
Cresol Red	0.005 g
Pyridoxal	0.005 g
L-Arginine	10.0 g
Final pH = 6.0 ± 0.2 at 25°C	

• PROCEDURE

Suspend 20.52 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 115°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into tubes.

• INTERPRETATION

Arginine Decarboxylase Broth is a medium used for the identification and determination of organisms on the basis of arginine decarboxylation. Peptone and beef extract provide nitrogen, carbon, vitamins and minerals. Dextrose provides the energy source. Bromocresol purple and cresol red are the pH indicators. Color change from purple to yellow and then back to purple is positive reaction. Pyridoxal is an enzyme co-factor for the amino acid decarboxylase. L-arginine is an amino acid to detect the production of the enzyme.

• TECHNIC

Inoculate fresh cultured colonies using a sterile loop to the medium. Mix well and overlay the tubes with 1 - 2 mL of sterile mineral oil. Incubate at 35 ± 2°C for 18 - 24 hours up to 4 days. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

Prepared medium

Appearance: clear

Color: light purplish yellow

Incubation conditions: 35 ± 2°C / 18 - 24 hours up to 4 days overlaying with sterile mineral oil

Microorganism	ATCC	Growth	Arginine Decarboxylation
<i>Enterococcus faecalis</i>	29212	good	+ (purple)
<i>Pseudomonas aeruginosa</i>	27853	good	+ (purple)
<i>Escherichia coli</i>	25922	good	- (yellow)
<i>Staphylococcus aureus</i>	25923	good	- (yellow)

• 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. Moeller. 1954. Acta. Pathol. Microbiol. Scand. 34:102.
2. Moeller. 1954. Acta. Pathol. Microbiol. Scand. 34:259.
3. Moeller. 1955. Acta. Pathol. Microbiol. Scand. 36:158.
4. MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. I. Williams & Wilkins, Baltimore, Md.
5. MacFaddin, J.F. 1980. Biochemical Tests for Identification of Medical Bacteria. 2nd ed. Williams & Wilkins, Baltimore, MD.
6. Gale, E.F. 1946. Adv. Enzymol. 6:1.

• PACKAGE

Cat. No : MB-A1306 Arginine Decarboxylase Broth	500 G
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