

Bile Aesculin Azide Agar

Catalog: HB0133-6

Bile Aesculin Azide Agar is used for counting of enterococci in food and water.

Approximate Formula:

Ingredients	gm/liter	Ingredients	gm/liter
Tryptone	17.0	Sodium citrate	1.0
Beef extract	3.0	Esculin	1.0
Yeast extract	5.0	Ferric ammonium citrate	0.5
Ox bile	10.0	Sodium azide	0.25
Sodium chloride	5.0	Agar	13.5

Final pH7.1±0.2 at 25°C

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 56.3g of the medium in one liter of deionized or distilled water, sterilize in an autoclave at 121°C for 15min, when cooling to 46±1°C, pour 15ml medium into petri dishes which contain 1ml of sample solution, about 15ml medium, mix well, solidifying. Invert the medium and incubate at 35±2°C for 24-48h.

Note: Please make the plate within 4h after heat preservation

Principle and Interpretation:

Tryptone and beef extract provide nitrogen source, vitamins and growth factors. Sodium chloride maintains equilibrium osmotic pressure; Bacteria hydrolyze Esculin and react with Ferrous ions in Ferric ammonium citrate to form the black 6, 7-dihydroxycoumarin. Sodium citrate, bovine bile powder and sodium azide are selective bacteriostatic agents to inhibit non-streptococcal bacteria. Agar is the solidifying agent of the medium.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of brown-yellow transparent gel.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Bile Aesculin Azide Agar must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 35°C for 24-48h.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Recovery	Remarks
<i>Enterococcus Faecium</i>	ATCC 35667	10-100	Luxuriant	≥70%	Brown-black colonies, fluorescence disappears
<i>Enterococcus faecalis</i>	ATCC 29212	10-100	Luxuriant	≥70%	Brown-black colonies, fluorescence disappears
<i>Escherichia coli</i>	ATCC 25922	100-1000	Inhibited	/	/
<i>Staphylococcus aureus</i>	ATCC 25923	100-1000	Inhibited	/	/

References:

1. Murray, Baron, Jorgensen, Landry and Pfaller (ed.). 2007. Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
2. Rochaix. 1924. C.R. Soc. Biol. 90:771.
3. Meyer and Schonfeld. 1926. Zentralbl. Bakteriell. Parasitenk. Infektionskr. Hyg. Abt. Orig. 99:402.