

TM 2007 – BILE ESCULIN AZIDE BROTH, MODIFIED

INTENDED USE

Used to differentiate between Enterococci and Group D Streptococci.

PRODUCT SUMMARY AND EXPLANATION

Bile Esculin Azide Broth, Modified is similar to the medium developed by Isenberg et. al. but with agar omitted. Colonies suspected of being Enterococci can be emulsified in 2ml of broth (Bile esculin azide broth, modified) and incubated at 35-37°C. The combination of esculin and bile in presence of sodium azide permits the selection and differentiation of Enterococci by esculin hydrolysis (Blackening of medium) within 2 hours, when heavy inoculum is used.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	17.000
Peptic digest of animal tissue	3.000
Yeast extract	5.000
Oxgall	10.000
Sodium chloride	5.000
Esculin	1.000
Ferric ammonium citrate	0.500
Sodium azide	0.250
Sodium citrate	1.000

PRINCIPLE

Casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract serve as a source of carbon, nitrogen and essential nutrients. Sodium azide inhibits growth of gram-negative organisms and permits the cultivation of Enterococci and group D Streptococci. Oxgall inhibits gram-positive bacteria other than Enterococci. Sodium citrate acts as a buffering agent. Esculin is hydrolysed by Enterococci and group D streptococci to esculin which reacts with ferric ammonium citrate to form dark brown or black complex.

INSTRUCTION FOR USE

- Dissolve 42.75 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

Caution: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Amber coloured, clear to slightly opalescent solution with a bluish tinge.
pH (at 25°C)	: 7.1±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Esculin hydrolysis	Incubation Temperature	Incubation Period
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	Positive reaction, blackening of medium	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	None-poor	Negative reaction	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Good	Negative reaction	35-37°C	18-24 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	None-poor	Negative reaction	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1.Isenberg, Goldberg and Sampson, 1970, Appl. Microbiol. 20:433.
- 2.MacFaddin, 2000. Biochemical test for identification of medical bacteria, 3rd ed. Lippincott William & Wilkins, Baltimore, Md.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Borkstrasse 10, 49163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019