

TM 584 - STREPTOCOCCUS ENRICHMENT BROTH (SE BROTH)

INTENDED USE

For enrichment of Streptococci.

PRODUCT SUMMARY AND EXPLANATION

The ability of Enterococci to hydrolyze the esculin was first observed by Rochaix. The Enterococci can hydrolyze the esculin but not the other Streptococci can do it. Presumptive identification of group D Streptococci by bile esculin test was reported by Facklam and Moody. Later on Bile Esculin medium was modified by Isenberg et al by reducing the bile concentration and by adding sodium azide to the medium.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	20.000
Yeast extract	5.000
Bovine bile	10.000
Sodium chloride	5.000
Sodium citrate	1.000
Esculin	1.000
Ferric ammonium citrate	0.500
Sodium azide	0.250

PRINCIPLE

Casein enzymic hydrolysate and yeast extract provide nitrogenous compounds, carbon, sulphur, trace elements and vitamin B complex, essential for Streptococci. Esculin is hydrolyzed by group D Streptococci (including Enterococci) to esculetin and dextrose. Esculetin reacts with ferric ammonium citrate to form a dark brown-black coloured complex. Bovine bile inhibits gram-positive bacteria other than Streptococci. Sodium azide inhibits gram-negative bacteria.

INSTRUCTION FOR USE

- Dissolve 42.8 grams in 1000 ml distilled water.
- Heat to dissolve the medium completely.
- Dispense in 9 ml amounts into test tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 20 minutes.
Warning: 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 : Yellow coloured homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured clear solution with a bluish tinge.
pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of medium	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Inhibited	-	35 - 37°C	18 - 48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Good-luxuriant	Black	35 - 37°C	18 - 48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Inhibited	-	35 - 37°C	18 - 48 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.

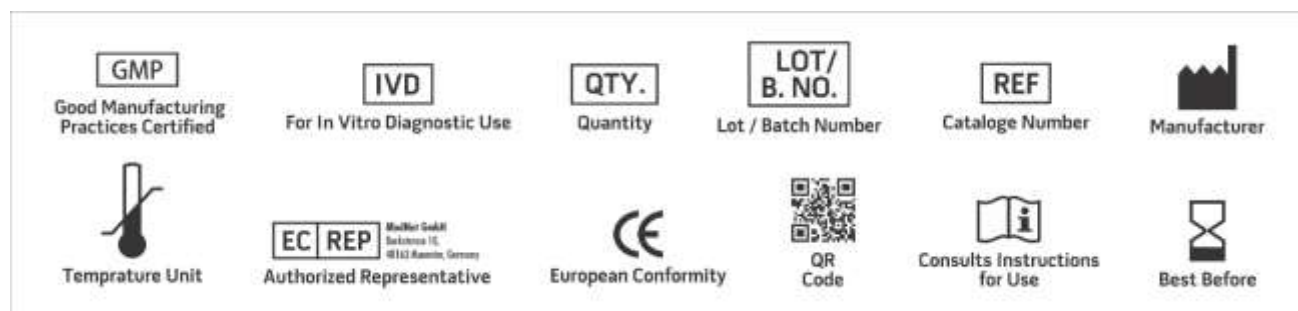
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Rochaix, 1924, C.R. Soc. Biol., 90:771.
2. Facklam and Moody, 1970, Appl. Microbiol., 20:245.
3. Isenberg, Goldberg and Sampson, 1970, Appl. Microbiol., 20:433.
4. MacFaddin J., 1980, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore.



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

***For Lab Use Only**
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