



PRODUCT DATA SHEET

SLANETZ AND BARTLEY MEDIUM

TM 1405

INTENDED USE

For detection and enumeration of faecal *Enterococci* by membrane filter technique.

COMPOSITION

Ingredients	Gms/Ltr
Tryptose	20.000
Agar	15.000
Yeast extract	5.000
Disodium phosphate	4.000
Dextrose	2.000
Sodium azide	0.400
2,3,5-Triphenyl tetrazolium chloride	0.100

PRODUCT SUMMARY AND EXPLANATION

SLANETZ AND BARTLEY MEDIUM is used for detection and enumeration of faecal *Enterococci* species by membrane filter technique. The medium was formulated by Slanetz et al. in order to enumerate *Enterococci* in water and beverages by the membrane filtration method. It can also be used as a direct plating medium. The medium is very selective for enterococci and, when it is incubated at elevated temperatures (44 - 45°C), all red or maroon colonies may be accepted as presumptive *enterococci*.

The Environment Agency 'Microbiology of Drinking Water 2002' recommends the use of Slanetz and Bartley medium for the enumeration of *enterococci* in water supplies, as do ISO in the standard for water quality.

PRINCIPLE

Tryptose and yeast extract in the medium provide the necessary nitrogen, vitamins and minerals required for the growth of organisms. Glucose is the fermentable carbohydrate providing carbon and energy. Dipotassium phosphate is a buffer. Sodium azide has inhibitory effect on gram-negative organisms. Triphenyl Tetrazolium Chloride is reduced to the insoluble formazan inside the bacterial cell forming dark red-coloured colonies.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow homogeneous free flowing powder

Appearance of prepared medium: Light yellow coloured clear to slightly opalescent gel

pH (at 25°C): 7.2± 0.2



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INTERPRETATION

Cultural characteristics observed after incubation at 44-45°C for 44-48 hours.

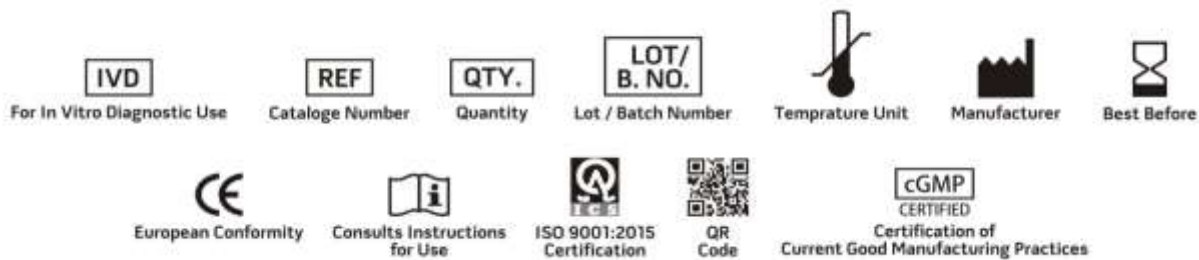
Test Strains	ATCC	Inoculum (cfu/ml)	Growth	Colour of colony
<i>Enterococcus faecalis</i>	29212	10 ³	Luxuriant	Pink-Red or maroon
<i>Escherichia coli</i>	25922	10 ³	inhibited	-

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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.

REFERENCES

1. Slanetz, L.W., Bent, D.F., and Bartley, C.H. Use of the membrane filter technique to enumerate enterococci. Public Health. Rep., 70: 67. (1955).
2. Slanetz, L.W., and Bartley, C.H.. Numbers of enterococci in water, sewage, and faeces, determined by the Membrane Filter Technique with an improved medium. J. Bacteriol., 74 (5): 591. (1957).
3. Rodier, J. L'analyse de l'eau. Dénombrement des streptocoques fécaux présumés. (Méthode par filtration sur membrane). Dunod 7è Ed., 828-829. (1984).
4. Environment Agency: The Microbiology of Drinking Water. Methods for the Examination of Water and Associated Materials. (2002).
5. Taylor E. W. and Burman N. P. (1964) J. Appl. Bact. 27. 294-303.
6. Mead G. C. (1966) Proc. Soc. Wat. Treat. Exam. 15. 207-221.
7. Environment Agency 'Microbiology of Drinking Water 2002'. Methods for Examination of Waters and Associated Materials.
8. ISO Standard for Water Quality - Detection and enumeration of intestinal enterococci - Part 2 : Membrane filtration method.



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