

TM 542 – PIKE STREPTOCOCCAL BROTH BASE

INTENDED USE

For selective enrichment & cultivation of Streptococci from throat swabs and other clinical samples.

PRODUCT SUMMARY AND EXPLANATION

Streptococcus is a genus of spherical, gram-positive bacteria having both pathogenic and commensal roles. Streptococci are subdivided into groups by antibodies that recognize surface antigens. These groups may include one or more species. The most important groupable streptococci are A, B and D. Individual species of *Streptococcus* are classified primarily based on their hemolytic properties (breakdown of red blood cells in a laboratory).

Pike Streptococcal Broth is prepared as per the formula described by Pike for selective enrichment and cultivation of haemolytic streptococci from throat swabs. This medium is also used to preserve *Streptococcus pyogenes*, *pneumococci* and *Haemophilus influenzae* from nose and throat swabs.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Tryptose	10.000
Yeast extract	10.000
Dextrose	0.200
Sodium azide	0.065
Crystal violet	0.002

PRINCIPLE

The medium consists of Casein enzymic hydrolysate, tryptose and yeast extract which provide nitrogenous nutrients, carbon, sulphur, vitamin B complex, trace elements for the growth of haemolytic streptococci. Dextrose acts as the energy source. Crystal violet inhibits gram-positive bacteria and sodium azide inhibits gram-negative rods and non-haemolytic streptococci.

INSTRUCTION FOR USE

- Dissolve 30.26 grams in 1000 ml distilled water.
 - Heat if necessary to dissolve the medium completely.
 - Dispense in 100 ml amounts in flasks. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
 - Cool to 45-50°C and aseptically add 5% v/v sterile defibrinated rabbit blood.
 - Mix well and dispense aseptically in 2 ml amounts in sterile tubes.
- 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** : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear solution without any precipitate.
pH (at 25°C) : 7.4 ± 0.2



INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	35-37°C	24-48 Hours
<i>Enterobacter aerogenes</i>	13048	$\geq 10^3$	Inhibited	35-37°C	24-48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Good-luxuriant	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	Inhibited	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 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. Pike R. M., 1944, Proc. Soc. Exptl. Biol. and Med., 57:186.
2. Pike R. M., 1945, Am. J. Hygiene, 41:211.
3. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone
4. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.



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 MedNet GmbH Baukstrasse 10, 49163 Muenster, Germany Authorized Representative	 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**
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