# Technical Information

## Pike Streptococcal MiVeg Broth Base

## Product Code : VM1519

**Application:-** Pike Streptococcal MiVeg Broth Base is used for selective enrichment and cultivation of *Streptococcus* species from throat swabs.

## Composition

| Ingredients | Gms / Litre |
|---|---|
| MiVeg hydrolysate | 10.0 |
| MiVeg hydrolysate No. 1 | 10.0 |
| Yeast extract | 10.0 |
| Dextrose | 0.2 |
| Sodium azide | 0.065 |
| Crystal violet | 0.002 |
| Final pH (at 25°C) | 7.4 ± 0.2 |

** Formula adjusted, standardized to suit performance parameters.

## Principle & Interpretation

Pike Streptococcal MiVeg Broth Base is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate and Tryptose thus making the medium free from BSE/TSE risks. This medium is the modification of Pike Streptococcal Broth which was formulated as described by Pike (1) for selective enrichment and cultivation of haemolytic *Streptococcus* species from throat swabs (2).

MiVeg hydrolysate, Miveg hydrolysate No.1 and yeast extract supplies nitrogenous nutrients, carbon, sulphur, vitamin B complex, trace elements for the growth of haemolytic *Streptococci*. Dextrose serve as the source of energy. Crystal violet inhibits *Staphylococcal* growth and sodium azide inhibits gram-negative rods.

## Methodology

Suspend 30.3 grams of powder media in 1000 ml distilled water. Mix well and heat if necessary to dissolve the medium completely. Dispense in 100 ml amounts in flasks. Sterilize by autoclaving at 15 lbs 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 thus it is advisable to use enough water to flush off the disposables.

## Quality Control

**Physical Appearance**

Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

**Colour and Clarity of prepared medium**

Yellow coloured, clear solution without any precipitate.

**Reaction**

Reaction of 3.0% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

**pH Range**

7.2 - 7.6

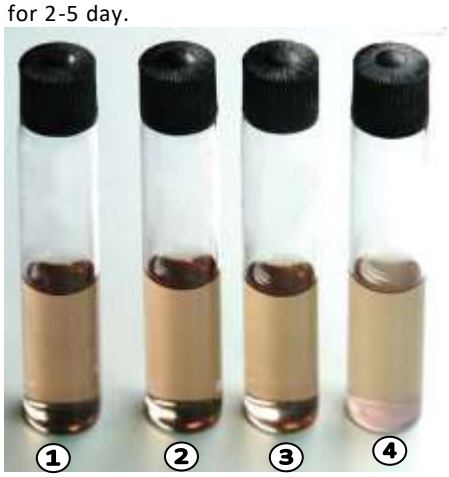
**Cultural Response/Characteristics**

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

| Organisms (ATCC) | Inoculum (CFU) | Growth |
|---|---|---|
| *Enterobacter aerogenes*(13048) | $10^2$-$10^3$ | inhibited |
| *Enterobacter aerogenes* (13078) | $10^2$-$10^3$ | luxuriant |
| *Escherichia coli* (25922) | $10^2$-$10^3$ | inhibited |
| *Staphylococcus aureus* (25923) | $10^2$-$10^3$ | inhibited |

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
**Prepared Media:** 2-8$^0$ in sealable plastic bags for 2-5 day.




**VM1519 Pike Streptococcal MiVeg Broth Base**

1. Control
2. *Enterobacter aerogenes*
3. *Escherichia coli*
4. *Enterococcus faecalis*

## Further Reading

1. Pike R. M., 1944, Proc. Soc. Exp. Biol. and Med., 57:187.
2. Pike R. M., 1945, Am. J. Hygiene, 41:211.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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