

Mitis Salivarius HiVeg™ Agar Base

MV259

Mitis Salivarius HiVeg Agar Base is recommended for the isolation from mixed cultures of *Streptococci* especially *Streptococcus mitis*, *Streptococcus salivarius*, *Enterococcus faecalis* showing alpha and gamma haemolytic reactions on Blood Agar.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	15.0
HiVeg peptone	5.0
Dextrose	1.0
Sucrose	50.0
Dipotassium phosphate	4.0
Trypan blue	0.075
Crystal violet	0.0008
Agar	15.0

Final pH (at 25°C) 7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 90 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50-55°C and add 1 ml of sterile 1% Potassium Tellurite Solution (FD052). DO NOT REHEAT the medium after the addition of tellurite solution.

Principle and Interpretation :

This medium is developed by using HiVeg hydrolysate and HiVeg peptone which are free of BSE/TSE risks. Mitis Salivarius HiVeg Agar Base is the modification of Mitis Salivarius Agar Base which is prepared as described by Chapman (1) for the isolation of *Streptococci* from mixed cultures showing alpha and gamma reactions on Blood Agar. This medium (with 1% potassium tellurite) is highly selective medium which enables to isolate *Streptococci* from highly contaminated specimens like exudates from body cavities and faeces etc., as it inhibits a wide variety of bacteria. Some authors have also used sodium azide in this medium to inhibit the growth of gram-negative bacteria like *Proteus* (2). Beta-haemolytic *Streptococci* produce colonies that resemble *Streptococcus mitis*.

HiVeg hydrolysate and HiVeg peptone provide the essential growth nutrients. Dextrose and sucrose are the fermentable carbohydrates. Dipotassium phosphate buffers the medium. Trypan blue is an acidic, blue diazo dye while crystal violet is a basic dye and also a bacteriostatic agent which inhibits many gram-positive organisms.

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV259 HiVeg peptone HiVeg hydrolysate	M259 Peptic digest of animal tissue Casein enzymic hydrolysate

Recommended for : The isolation of *Streptococci* from mixed cultures

Reconstitution : 90.0 g/l

Quantity on preparation (500g) : 5.55 L

pH (25°C) : 7.0 ± 0.2

Supplement : Potassium Tellurite Solution (FD052)

Sterilization : 121°C / 15 minutes

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Quality Control :**Appearance of powder**

Light blue coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity

Deep blue coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 9.0% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	good-luxuriant	>70%	blue/black
<i>Escherichia coli</i> (25922)	10 ² -10 ³	inhibited	0%	-
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	inhibited	0%	-
<i>Streptococcus mitis</i> (9895)	10 ² -10 ³	good-luxuriant	>70%	blue
<i>Streptococcus pyogenes</i> (19615)	10 ² -10 ³	good-luxuriant	>70%	blue
<i>Streptococcus salivarius</i>	10 ² -10 ³	good-luxuriant	>70%	blue (gum drop)

References :

1. Chapman, 1946, Am. J. Digestive Diseases, 13:105.
2. Snyder and Lichstein, 1940, J. Infect. Dis., 67:113.
3. Lichstein and Snyder, 1941, J. Bact., 42:653.