Technical Information

SDS MiVeg Agar
(Sodium Dodecyl Sulphate Polymyxin Surcrose MiVeg Agar)

Product Code :VM2155

Application:- SDS MiVeg Agar is used for enrichment, isolation and enumeration of *Vibrio vulnificus* from seafood

Composition

Ingredients	Gms / Litre
MiVeg peptone No. 3	10.00
MiVeg extract	5.00
Sucrose	15.00
Sodium chloride	20.00
Sodium dodecyl sulphate	1.00
Bromo thymol blue	0.04
Cresol red	0.04
Agar	15.00
Final pH (at 25°C)	7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

SDS MiVeg Agar is prepared by adding vegetables peptones instead of animal based peptones thus making the medium free from BSE/TSE risks. SDS MiVeg Agar is the modification of SDS Agar which was formulated as described by Bryant et al (1) for differentiation of *Vibrio vulnificus* from other *Vibrios* and is also recommended by APHA (2) for isolation and enumeration of *Vibrio vulnificus* from sea foods. *Vibrio vulnificus* is the causative agent of septicemic shock. An association between septicemia and consumption of raw oysters has been determined on SDS MiVeg Agar. MiVeg peptone No.3 and Veg extract supplies essential growth nutrients like nitrogenous and carbonaceous compounds. Sucrose is the fermentable carbohydrate. *Vibrio cholera* ferments sucrose while *Vibrio vulnificus* does not ferment sucrose. On the basis of fermentation reaction , *Vibrio vulnificus* forms distinctive colonies which are round, opaque, blue to brownish, about 2 to 3 mm in diameter with a blue opaque halo around each colony while *Vibrio cholerae* appears as small, smoooth opaque and yellow coloured colonies. Combination of Sodium dodecyl sulphate, Polymyxin B, moderate alkalinity and sailinity maintains selective properties needed for the growth of *Vibrios*. 2% sodium chloride addition maintains optimum salinity required for the growth of *Vibrios*. Bromothymol blue and cresol red act as pH indicators in the medium.

Methodology

Suspend 33.04 grams of powder media in 500 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45 to 50°C and aseptically add of 1 vial rehydrated contents of Polymyxin B Selective Supplement (MS2003). Mix well before pouring into sterile petri plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Reddish purple coloured, clear to slightly opalescent gel forms in petriplates.

Reaction

Reaction of 6.6% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C.

pH Range

7.4 - 7.8

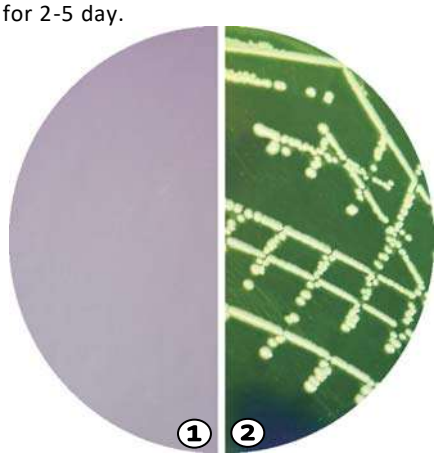
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
Vibrio vulnificus (29306)	10^2-10^3	luxuriant	>50%	blue
Vibrio cholerae (15748)	10^2-10^3	luxuriant	>50%	yellow

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.



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1. Control
2. *Vibrio cholerae*

Further Reading

1. Bryant , R.G., Jarvis, J., and Janda, J.M. 1987. Use of Sodium dodecyl sulphate- polymyxin B-sucrose medium for isolation of Vibrio vulnificus from shellfish. Appl. Environ. Microbiol. 53:1556.
2. Vanderzant C and Splittstoesser DF (eds)1992, Compendium of Method for the Microbiological Examination of Foods, 3rd ed. APHA, Washington, D.C.

Disclaimer :

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