TM 281 - SDS AGAR (SODIUM DODECYL SULPHATE POLYMYXIN SUCROSE AGAR) (as per APHA)

INTENDED USE

For enrichment, isolation and enumeration of *Vibrio vulrificus* from sea food samples.

PRODUCT SUMMARY AND EXPLANATION

Vibrio vulnificus is a gram-negative, motile, curved, rod-shaped bacterium. Present in marine environments such as estuaries, brackish ponds, or coastal areas, *V. vulnificus* is closely related to *V. cholera*. The causative agent of cholera.

V. vulnificus causes an infection often incurred after eating seafood, especially oysters. The bacteria can also enter the body through open wounds when swimming or wading in infected waters. SDS Agar is formulated as described by Bryant et al for differentiation of *V. vulnificus* from other *Vibrio.* SDS Agar is recommended by APHA for isolation and enumeration of *V. vulnificus* from sea foods. *V. vulnificus* is a causative agent of septicemic shock associated with consumption of raw oysters. *V. 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.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Beef extract	5.000
Sucrose	15.000
Sodium chloride	20.000
Sodium dodecyl sulphate	1.000
Bromothymol blue	0.040
Cresol red	0.040
Agar	15.000

PRINCIPLE

The medium contains proteose peptone and beef extract which provide necessary growth nutrients like nitrogenous and carbonaceous compounds. Sucrose is a fermentable sugar.

Addition of 2% sodium chloride to the medium provides necessary salinity for the growth of *Vibrio.* Bromothymol blue and cresol red act as pH indicators. Sodium dodecyl sulphate and polymyxin B sulphate are the selective agents.

INSTRUCTION FOR USE

- Dissolve 33.04 grams in 500 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45 to 50°C and aseptically add rehydrated contents of 1 vial of Polymyxin B Selective Supplement.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS.

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Reddish purple coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Vibrio cholerae	15748	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
Vibrio vulnificus	29306	50-100	Luxuriant	>=70%	Blue	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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. Oliver J. D., Kaper J., 2001, Vibrio species. pp. 263-300 In: Food Microbiology: Fundamentals and Frontiers, (Doyle M.
2. P. et al, Editors), 2nd Ed., ASM Press. 1555811175.
3. Oliver J. D., 2005, "Wound infections caused by Vibrio vulnificus and other marine bacteria", Epidemiol. Infect. 133 (3): 383-91.
4. Bryant R. G., Jarvis J. and Janda J. M., 1987, Appl. Environ. Microbiol. 53:1556.
5. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.

GMP Good Manufacturing Practices Certified	IVD For In Vitro Diagnostic Use	QTY. Quantity	LOT/ B. NO. Lot / Batch Number	REF Cataloge Number	Manufacturer
Temprature Unit	EC REP Authorized Representative	CE 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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