

**SDS AGAR (SODIUM DODECYL SULPHATE POLYMYXIN SUCROSE) TM 281**

for enrichment, isolation and enumeration of *Vibrio vulnificus* from sea food samples

**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

\* Dehydrated powder, store in a dry place, in tightly-sealed containers at 24°C and protect from direct Sunlight.

**Instructions for Use**

Dissolve 66.08 gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 45 - 50°C and aseptically add rehydrated contents of 2 vials of POLYMYXIN B SELECTIVE SUPPLEMENT (TS 058). Mix well and pour into sterile petriplates.

**Appearance:** Reddish purple coloured clear to slightly opalescent

**PH (at 25°C):** 7.6 ± 0.2

**Principle**

**SDS AGAR (SODIUM DODECYL SUPLPHATE POLYMYXIN SUCROSE AGAR) (as per APHA)** is used for enrichment, isolation and enumeration of *Vibrio vulnificus* from sea food samples. SDS Agar is formulated as described by Bryant et al and recommended by APHA. *Vibrio vulnificus* is a gram-negative, motile, curved, rod-shaped bacterium. *V. vulnificus* causes an infection often incurred after eating seafood, especially oysters. *V. vulnificus* is a causative agent of septicemic shock associated with consumption of raw oysters.

Beef extract and proteose peptone provides 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



## PRODUCT DATA SHEET

are the selective agents. *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.

### Interpretation

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

Microorganisms	ATCC	Inoculum (CFU)	Growth	Colour of colony
<i>Vibrio cholerae</i>	15748	10 <sup>3</sup>	Luxuriant	Yellow
<i>Vibrio vulnificus</i>	29306	10 <sup>3</sup>	Luxuriant	Blue

### References

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