

Technical Data Sheet

SPS Agar (Perfringens Selective Agar acc. to ANGELOTTI)

Ordering number: 1.10235.0500

Sulfite Polymyxin Sulfadiazine Agar, proposed by ANGELOTTI et al. (1962) for the isolation and enumeration of *Clostridium perfringens* and *Clostridium botulinum* in all types of foodstuffs.

Mode of Action

Sulfite Polymyxin Sulfadiazine Agar contains a broad spectrum of nutrients. Sulfite is reduced by most clostridia (including *Clostridium perfringens*) to sulfide, which reacts with iron citrate and causes the colonies to turn black. Other sulfite-reducing microorganisms are largely suppressed by polymyxin and sulfadiazine (sulfapyrimidine). The low sulfite content allows growth of even sulfite-sensitive clostridia which also exhibit an adequate blackening of the colonies (PUT et al. 1961; BEERNS et al. 1961).

Typical Composition (g/L)

SPS Agar (Perfringens Selective Agar acc. to ANGELOTTI)	
Peptone from casein	15.0
Yeast extract	10.0
Iron(III) citrate	0.5
Sodium sulfite	0.5
Polymyxin B sulfate	0.01
Sodium sulfadiazine	0.12
Agar-agar**	13.9

**Agar-agar is equivalent to other different terms of agar.

Preparation

Suspend 40 g/litre, autoclave (15 min at 121 °C).

pH: 7.0 ± 0.2 at 25 °C.

The prepared medium is clear and yellowish-brown.

Experimental Procedure and Evaluation

Mix the culture medium with the sample material (homogenized and diluted), pour into plates or tubes. Seal the tubes with sterile liquid paraffin. Place the plates in an anaerobic jar. Anaerocult® A, Anaerocult® A mini or Anaerocult® P can be used for this purpose.

Incubation: 24-48 hours at 35 °C.

Clostridia develop with black colonies. Further tests should be performed for purposes of identification.

Quality Control

Control strains	Growth	Blackening
Clostridium perfringens ATCC 10543	Good to very good	+
Clostridium perfringens ATCC 13124 (WDCM 00007)	Good to very good	+
Clostridium sporogenes ATCC 11437	Good to very good	+
Escherichia coli ATCC 25922 (WDCM 00013)	None to fair	-
Pseudomonas aeruginosa ATCC 27853 (WDCM 00025)	None to poor	-

Please refer to the actual batch related Certificate of Analysis.



Clostridium perfringens ATCC 13124



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Literature

ANGELOTTI, R., HALL, H.E., FOTER, M.J., a. LEWIS, K.M.: Quantitation of Clostridium perfringens in Foods. – **Appl. Microbiol.**, **10**; 193-199 (1962).

BEERENS, H., CASTEL, M.M., et LECLERC, H.: Contribution à l'étude des Milieux au sulphite de sodium pour l'isolement des Clostridium. – **Ann. Inst. Pasteur Lille**, **12**; 183-193 (1961).

PUT, H.M.C.: Sulphito-réduction et sulphito-sensibilité des Clostridia: considérations taxonomiques et pratiques. – **Ann. Inst. Pasteur Lille**, **12**; 175-181 (1961).

Ordering Information

Product	Cat. No.	Pack size
SPS Agar (Perfringens Selective Agar acc. to ANGELOTTI)	1.10235.0500	500 g
Anaerobic jar	1.16387.0001	1 ea
Anaeroclip®	1.14226.0001	1 x 25
Anaerocult® A	1.13829.0001	1 x 10
Anaerocult® A mini	1.01611.0001	1 x 25
Anaerocult® P	1.13807.0001	1 x 25
Anaerotest®	1.15112.0001	1 x 50
Paraffin viscous	1.07160.1000	1 l
Plate basket	1.07040.0001	1 ea

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