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MAST ID™

SPS (Sodium Polyanethol Sulphonate) Identification Discs

For the presumptive identification of *Peptostreptococcus anaerobius*.

Introduction

Peptostreptococcus is the genus of Gram positive anaerobic cocci (GPAC) most commonly cultured from human clinical material and can account for up to one third of the total number of anaerobic isolates[1]. Inclusion of nalidixic acid and Tween 80 into isolation media is generally indicated for the selective recovery of GPAC[2] as they frequently occur in mixed infections. However, when cultured on blood agar the peptostreptococci tend to exhibit few differential features and there are relatively few phenotypic tests that allow easy recognition of individual species[3]. The use of the characteristic inhibition by Sodium Polyanethol Sulphonate (SPS) of *P.anaerobius* was first described by Graves *et al* [4] and, to simplify identification of this organism, it is recommended that the test is routinely applied to isolates of GPAC[5].

Description

MAST SPS Identification Discs contain accurately assayed quantities (1000µg per disc) of Sodium Polyanethol Sulphonate and are provided as a single vial containing 100 discs (Order Code D55) or as a pack of 5 cartridges, each cartridge containing 50 discs (Order Code D55C).

In Use

1. Prepare a suspension, equivalent in turbidity to a 0.5 McFarland standard, of the organism to be tested. Organisms should be confirmed to be GPAC by Gram stain and metronidazole sensitivity before commencing the test.

2. Using a sterile cotton swab, evenly inoculate plates of MAST Wilkins Chalgren Agar (DM235).

3. Place one SPS disc on each plate inoculated and incubate anaerobically at 37°C for 48 hours .

4. Measure and record the diameter of any zones of inhibition that are observed.

Interpretation

A zone diameter of greater than or equal to 12mm is considered susceptible.

Note: *P.micros* and *P.prevotii* produce small zones of inhibition, usually of less than 10mm. Occasional isolates can produce zones larger than 12mm which will be interpreted as sensitive.

References

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2. Wren MWD. Multiple selective media for the isolation of anaerobic bacteria from clinical specimens. *J Clin Pathol* 1980; **33**: 61-65.

3. Brazier JS. Anaerobic cocci. In: Principles and practice of clinical bacteriology. Emmerson AM, Hawkey PM, Gillespie SH, editors. Chichester: Wiley, 1997: 585-598

4. Graves MH, Morello JA, Kocha FE. Sodium polyanetholsulfonate sensitivity of anaerobic cocci. *Appl Microbiol* 1974; **27**: 1131-1133

5. Edelstein MAC. Processing clinical specimens for anaerobic bacteria: isolation and identification procedures. In: Diagnostic Microbiology. Baron EJ, Finegold SM, editors. St Louis : CV Mosby, 1990: 477-507