MAST ID™
OPTOCHIN DISCS

For the identification of *Streptococcus pneumoniae*

**Introduction**

Streptococci producing partial (alpha) haemolysis on blood agar are divided into two groups; *Streptococcus viridans* and *Streptococcus pneumoniae*. The large and more heterogeneous group *Strep. viridans* lead a predominantly commensal existence although they do play a pathogenic role in subacute bacterial endocarditis in patients with predisposing lesions. *Strep. pneumoniae* (pneumococci) have a much greater clinical significance, its members being the causative organisms in lobar pneumoniae and other diseases. It is therefore of great importance to differentiate between the two groups.

Bowers and Jefferies\(^1\) showed that most strains of *Strep. pneumoniae* are sensitive to optochin (ethylhydrocuprein hydrochloride). Use of optochin as a specific inhibiting agent for *Strep. pneumoniae* was also confirmed by Bowen et al.\(^2\)

**Description**

MAST ID™ Optochin Discs are filter paper discs impregnated with 5µg optochin. Each disc is printed with the code OPID on both sides for easy identification.

**Directions**

1. Subculture the test alpha haemolytic streptococcus by spreading over a blood agar plate.
2. Place an optochin disc on the inoculated medium.
3. Incubate overnight at 37°C before reading the results.

**In Use**

Several strains may be radially streaked onto a plate, the disc being placed in the centre.

This allows a standard sensitive organism to be used for comparison. Such an organism is *Strep. pneumoniae*-type 1 (NCTC 7465).

A clearly defined zone of inhibition of growth usually of 15mm or more around the disc or along a stroke of growth, indicates that the test organism is probably *Strep. pneumoniae*.

A MAST ID™ Optochin Disc placed upon a primary culture from a sputum or pus specimen is particularly useful giving an indication of the presence of pneumococci by diminution of growth around the disc.

**Storage**

Store at 2-8°C in the containers provided. Allow to equilibrate to room temperature before opening.

**Packing and Ordering Details**

MAST ID™ Optochin Discs are provided either as vials of 100 discs (D42) or as packs of 5 cartridges (D42C), each cartridge containing 50 discs.

**References**