

Optochin

Intended Use

Optochin Discs are used for identification and differentiation of *Streptococcus pneumoniae* and Viridans Streptococci.

Summary

Optochin discs are filter paper discs infused with optochin. The test is based on the property of viridans streptococci to grow in the presence of Optochin (ethyl hydrocuprein hydrochloride) which inhibits pneumococci. This test is performed for the detection of pneumococcal infections. Specimens of sputum, lung aspirate, pleural fluid, CSF, urine or blood are first examined by Gram's stain, cultured and the isolates are then exposed to Optochin Sensitivity Test.

Principle

Alpha haemolytic (viridans) streptococci and *Streptococcus pneumoniae* cannot be easily distinguished on Blood Agar plates as pneumococci strain shows α-haemolysis. Optochin is inhibitory for pneumococcal growth whereas other streptococci strains show good growth or a very small zone of inhibition. Correlation between bile solubility and full optochin susceptibility for the differentiation of *Streptococcus pneumoniae* from other streptococci was shown by Bowers and Jeffries.

Directions

1. Prepare Mueller Hinton Agar Plates with addition of sterile defibrinated blood.
2. Inoculate the entire agar surface of the plate three times, rotating the plate 60° between streaking to obtain even inoculation.
3. Swab the rim of the agar bed too.
4. Immediately place Optochin disc in the centre of the plate.
5. Tap the discs with some sterile needle or forceps after placing them on the agar for complete contact with the medium surface.
6. Invert the plates and incubate at 35°C-37°C for 18-24 hours.

Quality Control

Appearance: Filter paper discs of 6 mm diameter with printed "OP 5" on each side of the disc.

Cultural Response: Average diameter of zone of inhibition observed on Blood Agar for 18-24 hours incubation at 35°C-37°C for standard cultures.

Organism (ATCC)

Streptococcus pneumoniae (6305)

Standard Diameter of zone of inhibition

≥14 mm

Storage and Stability

Disc in routine use should be stored at 2°C– 8°C. Longer term storage should be at -20°C.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. E.F. Bowers, L.R. Jeffries, J. Clin. Path., 8, 58 (1995).
2. Bouvet A., Grimont F., Grimont P.A.D., Streptococcus defectivus sp. nov and Streptococcus adjacens sp. nov., nutritionally variant streptococci from human clinical specimens., Int. J. Syst. Bacteriol., 39, 290 (1989).
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
206150100050	Differentiation Discs	Single Vial (1x 50 Disc)

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
