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Section: Technical Manual	Subject Title: Optochin Sensitivity Test	
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OPTOCHIN SENSITIVITY TEST

Principle

This test is used to determine an organism's susceptibility to the chemical optochin (ethylhydrocupreine hydrochloride) for the presumptive identification of *S. pneumoniae*.

Reagents

Bacto Optochin Disks (5 µg disk) Store refrigerated
Mueller Hinton Sheep Blood Agar (MHSBA)

Other Materials

Culture loop
Forceps
Cotton swabs

Procedure

1. Inoculate the suspected alpha haemolytic colony onto a MHSBA to obtain confluent growth.
2. Using aseptic technique place an optochin disk onto the surface of the inoculated agar. Press down with forceps.
3. Incubate at 35°C in CO₂ for 18-24 hours.

Interpretation

Susceptible: Zone of inhibition of at least 14 mm
Resistant: Zone of inhibition less than 14 mm

Quality Control

Test with known susceptible and resistant control strains weekly:

Susceptible: *S. pneumoniae* (ATCC 6303)
Resistant: Viridans Strep. (LPTP 8610)

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References

1. MacFaddin JF, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore MD., 1980, p245-249.
2. Difco package insert, July 1983.