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Section: Technical Manual	Subject Title: Bile Solubility Test	
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BILE SOLUBILITY TEST

Principle

Tests the ability of alpha haemolytic streptococci to lyse in the presence of bile salts. This test is used for the identification of *Streptococcus pneumoniae*.

Reagents

BBL Spot Test dropper (10% sodium desoxycholate).

Procedure

1. Hold the dropper upright and squeeze gently to crush the glass ampoule inside the dispenser.
2. Place 1 drop of the reagent directly on isolated colonies of suspected *S. pneumoniae*.
3. Keep the plates very level to prevent the reagent from running and washing a non-pneumococcal colony away, producing a false positive result.
4. Incubate at room temperature on the bench for 15-30 minutes until the reagent dries. Do not invert the plate; leave the lid ajar.
5. Examine the colonies for lysis.

Interpretation

Positive (bile soluble): Lysis of the colonies.

Negative (bile insoluble): No lysis of colonies.

Quality Control

Test with known positive and negative control strains weekly.

Positive: *S. pneumoniae* (ATCC 6303)

Negative: Viridans Streptococcus (LPTP 8610)

References

1. Murray PA, et al. Manual of Clinical Microbiology, 7th ed., 1999; p. 1665.
2. BBL Desoxycholate Reagent Droppers package insert, April 1991.