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Policy & Procedure Manual			
Section: Technical Manual	Subject Title: Tube Coagulase	Subject Title: Tube Coagulase Test	
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#### **TUBE COAGULASE TEST**

### **Principle**

This test is used to speciate staphylococci by determining the ability of an isolate to clot plasma by producing the enzyme coagulase.

### Reagents

#### Rabbit plasma

- 1. Reconstitute one vial at a time with sterile distilled water (volume determined by vial size).
- 2. Store refrigerated before and after reconstitution. Use within 72 hours of reconstitution

## **Other Materials**

Sterile glass tubes (tube method) Culture loop or wooden applicator stick

#### **Procedure**

- 1. Add 0.5 mL of plasma to a sterile glass tube.
- 2. Emulsify a large loopful of a pure colony of *Staphylococcus* into the plasma.
- 3. Incubate at 35°C for 4 hr, observing every 30 minutes for clot formation.
- 4. If there is no visible clot at the end of 4 hours, leave at room temperature overnight and observe for clot formation.

#### **Interpretation**

Positive: Clot formation

Negative: No clot formation

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# **Precautions**

1) When observing the tube, do not shake or agitate the tube.

# **Quality Control**

Each time a coagulase test is performed, known positive and negative cultures must be tested.

Positive: S. aureus (ATCC 25923) Negative: S. epidermidis (ATCC 12228)

## **References**

1. MacFaddin, J.F., Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore MD, 1980, pgs. 64-77.