

75832 Coagulase Test (Slide)

For the detection of coagulase-negative or -positive organisms (*Staphylococcus aureus*).

Product Description:

1 box contains 30 discs (made from rabbit plasma)

Store below 8°C and use before expiry date.

Directions:

Place 1 drop of distilled water on a glass microscope slide and prepare a heavy suspension of the organism being tested. Add 1 Coagulase Disc and rub the disc about in the suspension, using the tip of a wire loop. At once add a second drop of distilled water and mix again.

Coagulase-negative organisms will remain evenly suspended. Macroscopic clumping will occur within 30 seconds in a positive test; do not observe beyond 1 minute as drying may give a misleading appearance of granularity. Positive and negative control cultures must be read with each test.

Principle and Interpretation:

This test is to differentiate potentially pathogenic *Staphylococcus* species from other Gram-positive, catalase-positive cocci by the detection of coagulase. It is thought that an infective organism that produces the coagulase enzyme may protect itself by inducing clotting in surrounding tissues, thereby inhibiting destruction by normal body defenses such as phagocytosis or antibodies. The coagulase formation by *Staphylococcus aureus* and its formation of enteric toxins are very closely related. Therefore, together with the DNase test, the Coagulase Test is an important indicator for the pathogenicity of *Staphylococcus* strains.

Staphylococcus aureus produce free and bound coagulase. Free coagulase is an extracellular enzyme which reacts with prothrombin and its derivatives. Bound coagulase is localized on the surface of the cell wall and reacts with α - and β -chains of the plasma fibrinogens to form a coagulate. With this test only, the bound form of coagulase is measured.

References:

1. W.H. Sperber, S.R. Tatini, Interpretation on the tube coagulase test for the identification of *Staphylococcus aureus*. - Appl. Microbiol., 29, 502 (1975)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

