

50448 Staphylo Monotec test kit Plus

Staphylo Monotec test kit Plus is a new rapid agglutination test for differentiation between *Staphylococcus aureus* and other *Staphylococcus*. This method has been evaluated for clinical specimens and food material. With this kit coagulase and protein A, and capsular Polysaccharide (serotype 5) on *S. aureus* can be detected in one step. Staphylo Monotec test kit Plus has an increased sensitivity and specificity compared to the old Staphylo Monotec test kit which results in detecting more methicillin resistant *Staphylococcus aureus*.

Kit content	Qty.
Test reagent (88786; vial with red cap), 1.9 ml <i>The reagent consists of monodisperse particles coated with IgG, polyclonal antibodies against capsular against capsular polysaccharide (serotype 5) and fibrinogen.</i>	1
Control reagent (69187; vial with white cap), 1.9 ml <i>The control reagent consists of monodisperse particles coated with bovine serum albumin.</i>	1
Analysis cards (6 spots per card) (contains reagent for more than 100 tests)	25

Directions:

1. Take the reagent out of the refrigerator and let them stand until they have reached room temperature.
2. Agitate the reagent vials vigorously for 10 sec. preferably by vortexing.
NOTE: The solution must be homogeneous before use.
3. Place one drop of the test reagent on the analysis card.
4. Transfer some colonies (minimum four) to the test reagent and mix well for 20 sec.
5. If no agglutination occurs, than tilt the card ten times. A positive reaction will give a clearly visible agglutination.
6. Tilt the analysis plate carefully ten times and look for agglutination. A positive reaction will give a clearly visible agglutination.
7. When the agglutination is weak or ambiguous, repeat step 3 to 5 with the control reagent.

Interpretation of the result:

1. The isolate is *S. aureus* if agglutination occurs in the test reagent, but not in the control reagent.
2. The isolate is not *S. aureus* if the test reagent and the control reagent does not agglutinate.
3. If both the test reagent and control reagent agglutinate, then there is a non-interpretable result.



Principle and Interpretation:

Staphylo Monotec test kit Plus test reagent consists of monodisperse particles coated with fibrinogen and immunoglobulin G (IgG). For improved detection of methicillin resistant *S. aureus* some particles are also coated with polyclonal antibodies against capsular polysaccharide (serotype 5). On average 97% of human *S. aureus* isolates are coagulase positive. In addition, and independently of the coagulase property, more than 95% of all clinical *S. aureus* isolates have protein A in the cell wall. Because fibrinogen binds to the cell-associated enzyme coagulase, and because the Fc part of the IgG binds to protein A, a rapid agglutination occurs, when *S. aureus* is mixed with the test reagent. However, some *S. aureus* strains, (mainly the Methicillin Resistant) do not agglutinate with particles coated only with fibrinogen and IgG as the bacteria are covered by a capsular polysaccharide. To detect these strains the test reagent also includes particles with antibodies against capsular polysaccharide (serotype 5). Therefore Staphylo Monotec test kit Plus has increased sensitivity for the detection of *S. aureus*.

To obtain highest possible safety of the analysis the Staphylo Monotec test kit Plus also contains a control reagent for use when the agglutination is ambiguous. The control reagent consists of monodisperse particles coated with bovine serum albumin. When four or more colonies of *S. aureus* are mixed with a drop of the test reagent on the analysis card, a strong, rapid and clearly visible agglutination occurs.

The test is highly sensitive and specific. Results are easy to interpret a positive result gives clear white agglutinates against a black background. The kit has been evaluated on both human and veterinary/food material.

	Human	Veterinary/Food
Sensitivity	98.6%	100.0 %
Specifity	99.0%	98.0%

Limitations:

Some strains of the new species, *S. lugdunensis* and *S. schleiferi*, have been reported to react with the fibrinogen affinity factor detecting clumping factor and may therefore give positive results on latex agglutination tests.

Storage:

Store Staphylo Monotec test kit Plus in a refrigerator between +2 and +8 °C. Shelf life is stated on the package.

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.

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