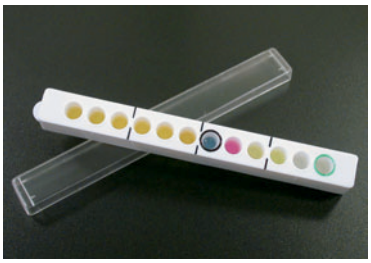
MICROBACT™ STAPHYLOCOCCAL 12S

A simple, standardised system for the rapid identification of clinically relevant *Staphylococcus* species only.



FAST

Definitive identifications in less than 24 hours.

EASY TO USE

Simple test strip format.

EASY TO READ AND INTERPRET

Results are clearly visible as distinct colour reactions that can be interpreted using the Microbact™ Identification Package.

COMPREHENSIVE

Identifies 22 clinically significant *Staphylococcus*, including coagulase-negative and coagulase-positive staphylococci.

RELIABLE

A combination of sugar utilisation and colorimetric enzyme detection substrates based upon proven, published methods[1-6].

MICROBACT

IDENTIFICATION KITS

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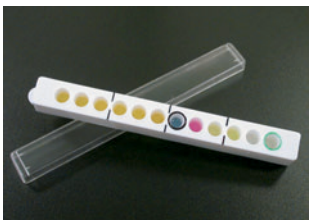

MICROBACT™ STAPH 12S (MB1561A)

KIT CONTENTS:

Each kit contains sufficient materials to perform 20 identifications.

20 Microbact™ Staph 12S Test Strips

21 Microbact™ Staph 12S Suspending Medium Vials (3ml)

Holding Tray

Technical Product Insert

Organism Identification Report Forms, including Colour Interpretation Chart

ADDITIONAL ITEMS REQUIRED:

Microbact™ Identification Package (Windows®) MB1244A

Mineral Oil MB1093A

Fast Blue Reagent MB1588A

TESTING FOR STAPHYLOCOCCI

Staphylococci are Gram-positive, non-motile, non-spore forming, catalase-positive facultative anaerobes.

Members of this genus, in particular coagulase-negative staphylococci (CNS), are important components of the human commensal flora[7] and are frequent contaminants. CNS have become important nosocomial pathogens due, in part, to the increased use of immunosuppressive regimes and indwelling medical devices. As a result, it has become imperative for clinical microbiology laboratories to identify CNS and other staphylococci to species level[8].

PRINCIPLE

Each Microbact™ Staph 12S Test Strip incorporates 12 tests based on sugar utilisation and colorimetric enzyme detection. The sugar utilisation tests rely on a pH indicator colour change, whilst the enzyme detection substrates produce a coloured end product or react with an added indicator.

Reactions that occur during the incubation period are clearly demonstrated by a visible colour change that can be easily interpreted using the Microbact™ Identification Package (MB1244A). Each *Staphylococcus* species produces a different pattern of reactions, allowing the definitive identification of 22 clinically relevant species.

PROCEDURE

For details on the isolation of *Staphylococcus*, please refer to the instruction leaflet.

1. Pick 2 to 5 isolated colonies from an 18-24 hour pure Staphylococcal culture.
2. Emulsify colonies in 3ml Suspending Medium.
3. Place Test Strip in Holding Tray and remove lid.
4. Add 4 drops bacterial suspension to each well.
5. Add 2 drops Mineral Oil (MB1093A) to well 7 (black circle).
6. Replace lid and incubate at 35°C ± 2ºC for 24 hours.
7. Remove from incubator and add 2 drops Fast Blue Reagent (MB1588A) to well 12 (green circle).
8. Record results on report forms and interpret using the Microbact™ Identification Package.

IMPORTANT

- A purity check should be performed by inoculating a purity plate with 1 drop bacterial suspension. This should be incubated at 35ºC ± 2ºC for 24 hours.
- If the arginine reaction (well 7) cannot be interpreted with confidence after 24 hours, the strip can be replaced in the incubator and after further incubation read strip again.
- Performance should be monitored by testing appropriate control strains, such as *Staphylococcus aureus* (C7010L), *Staphylococcus epidermidis* (C6500L) or *Staphylococcus saprophyticus* (C7014L).

References: 1. Kloos, W.E. and Bannerman, T.L. (1999). In Manual of Clinical Microbiology, 7th edition p264-282. P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, R.H. Yolken (ed) American Society of Microbiology, Washington D.C. 2. Geary, C., Stevens, M., Sneath, P.H.A. and Mitchell, C.J. (1989) J. ***Clin. Pathol.*** **42**: 289-294. 3. Leven, M., Verhoeven, J, Pattyn, S.R. and Goossens, H. (1995) J. ***Clin. Microbiol.*** **33**: 1060-1063. 4. Bascomb, S. (1987) Methods in Microbiology vol **19**, chpt 3, 105-160. 5. Bascomb, S. and Manafi, M. (1998) ***Clin. Microbiol.*** Rev. **11**: 318-340. 6. McTaggart, L. and Elliot, T.S.J. (1989) J. ***Med. Microbiol.*** **30**: 253-266. 7. Rhoden, D.L. and Miller, J.M. (1995) J. ***Clin. Microbiol.*** **33**: 96-98. 8. Kloos W.E. and Bannerman, T.L. (1994) ***Clin. Microbiol.*** Rev. **7**: 117-140.

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