CHROMagar™ Staph aureus/ CHROMagar™ MRSA

A divided Dish containing chromogenic media for the direct isolation and identification of *Staphylococcus aureus* on one side and for the direct isolation and identification of methicillin resistant *Staphylococcus aureus* (MRSA) on the other side.

For in vitro diagnostic use

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Cat. No. DD 066
90mm Prepared plates
Pkg.: 10 units in a nylon bag.
Expiry Date: Printed on label and on the item

Storage
Store at 2-8^0 C. Protected from light.

CHROMagar™ Staph aureus Side

Composition (g/L)
Agar 15; Peptones & salts 75; Special chromogenic mix 2.5.

Intended Use
CHROMagar Staph aureus utilizes a selective and differential medium developed by CHROMagar, Paris, designed for the detection and identification of *S. aureus* without the need of further testing.
The medium can be used for the isolation of *S. aureus* from clinical specimens, from food and from environmental sources.

Principle
The formulation includes selected peptones that supply the nutrients.
A mixture of chromogenic substrates release an insoluble colored compound when hydrolyzed by specific enzymes from *S. aureus,* leading to the growth of the microorganism in mauve colonies surrounded by a mate halo. The addition of selective agents to the medium inhibits the growth of most gram-negative bacteriae, *S. epidermidis* and yeasts.

Procedure

1. For clinical specimens: Wounds, sputum, nasal, bronchoalveolar lavage, tracheal and drainage aspirates and blood culture supernatant samples, use standard collection procedures.
2. If the plates have been refrigerated, allow to return to room temperature before inoculation.
   Streak sample onto plate and incubate aerobically at 35 ± 2^0 C for 24 hours in an inverted position (agar-side up). Incubation beyond 24 hours may potentially increase the number of false positive results.
3. For Food, Cosmetics and Water testing, follow standard recommended procedures.

Interpretation of Results

S. aureus strains grow in pink to mauve colonies that may show a mate halo.
Yeasts and gram-negative organisms are partially to completely inhibited.
Resistant gram-negative bacilli could appear as small blue colonies.
Other Gram-positive organisms are inhibited, or grow in colorless, blue, green or aqua-green colonies.

Procedure Limitations

- Occasional strains of coagulase negative staphylococci (*S. intermedius, S. cohnii*), as well as corynebacteria may produce mauve colonies.
- Confirmation of *S. aureus* I.D. may be accomplished by coagulase or agglutination tests.
- Minimize as possible exposure of CHROMagar MRSA to light before and during incubation in order to avoid destroying the chromogens. Keep plates within the original pack.
- Incubation beyond 24 hours may potentially increase the number of false positive results

CHROMagar™ MRSA side

Composition (g/L)

Base A: Agar 15 ; Peptones & salts 75; Special chromogenic mix 2.5
Liquid B: Supplement 80.3
Mix C: Inhibitory Supplement 0.25

Intended Use

CHROMagar Staph aureus utilizes a selective and differential medium developed by CHROMagar in Paris, allowing by a single step identification of MRSA. Low level resistence strains can be detected with a higher specificificity and sensitivity than classical methods.
The medium can be used for the rapid and accurate detection of the microorganism from nosocomial clinical specimens. It may be also used for the implementation of institutional programmes for recognition and management of MRSA outbreaks and cross infections by the performing of screening tests from nasal samples and from contact surfaces.

Principle

The Base formulation includes selected peptones which supply the nutrients. A mixture of chromogenic substrates release an insoluble colored compound when hydrolyzed by specific enzymes from *S. aureus,* leading to the growth of the microorganism in mauve colonies surrounded by a mate halo. Selective agents are added to the medium to inhibit the growth of most gram-negative bacteriae, *S. epidermidis* and yeasts. The medium is supplemented with a mixture (Mix C), which inhibits the growth of methicillin sensitive (MSSA) staphylococci, allowing the detection of the methicillin/oxacillin resistent strains, including the problematic borderline MICs.

Procedure

1. Use standard collection procedures for clinical specimens: Wounds, sputum, nasal, bronchoalveolar lavage, tracheal and drainage aspirates, and blood culture supernatant samples.

2. If the plates have been refrigerated, allow to return to room temperature before inoculation. Streak sample onto plate and incubate plates aerobically at 37^0 C for 24 hours, (inverted). Incubation beyond 24 hours can potentially increase the number of false positive results.

3. For Environmental Control Programms, use conventional swabbing techniques for sampling and incubate as indicated above.

Interpretation of Results

MRSA strains grow in pink to mauve colonies.
MSSA strains are inhibited.
Yeasts and gram-negative organisms are partially to completely inhibited.
Resistant gram-negative bacilli could appear as small blue colonies.
Other Gram-positive organisms are inhibited, or grow in colorless, blue, green or aqua-green colonies.

Procedure Limitations

Minimize exposure of CHROMagar MRSA to light before and during incubation in order to avoid destroying the chromogens. Store plates in the original package.

Confirmation of MRSA I.D. may be accomplished by agglutination tests.

Disposal

Used contaminated test material should be handled by standard decontamination methods such as autoclaving or incineration.