

INTENDED USE

Pro-Lab PL.530 Oxacillin Supplement is to be used for the isolation of methicillin resistant *Staphylococcus aureus* (MRSA).

SUMMARY AND EXPLANATION

Infections caused by MRSA strains (methicillin resistant *Staphylococcus aureus*) present a significant nosocomial problem^{1,2}. These strains must be identified to allow for the selection of antimicrobial agents for treatment and control of hospital infections.

In cultures containing methicillin resistant and methicillin susceptible organisms, the resistant part of the population grows more slowly and can be overgrown by the faster growing, susceptible part of the population. This prevents the identification of resistant strains.

Work by Lally et al³ has shown that the use of oxacillin together with mannitol salt agar is a reliable screening method for the detection and identification of MRSA.

DESCRIPTION

An accurate quantity of oxacillin is lyophilized and provided in individually labelled vials. Each vial is sufficient to supplement 1000 mls of prepared media.

FORMULA

Each vial contains:

Oxacillin 2.0 mg

PROCEDURE

1. To reconstitute each vial of Pro-Lab PL.530 Oxacillin Supplement add, aseptically, 10 mls of sterile deionized water. After closing the vial, gently agitate to assist reconstitution. The solution should be clear and free from visible particulate matter.
2. Add the reconstituted contents of one vial of the Oxacillin Supplement to 1000 mls of prepared media (Mannitol Salt agar or Blood agar) at a temperature of 50-55°C. Mix gently and pour into sterile petri dishes.
3. Overnight storage at 4°C is recommended to allow suitable equilibration. For extended storage at 4°C, eg. up to 7 days, plates should be contained in sealed plastic sleeves or similar packaging.

IN USE

1. Before using selective medium ensure that plates are dry.
2. Inoculate test material onto the surface of the agar using a sterile inoculating loop or a sterile swab in such a manner as to encourage the growth of isolated colonies.
3. Incubate plates at 37°C for 18 to 24 hours.
4. After incubation, examine plates for growth.

SAFETY PRECAUTIONS

1. Pro-Lab PL.530 Oxacillin Supplement is offered only as an *in vitro* material and is in no way intended for a curative or prophylactic purpose.
2. During and after use, handle all materials in a manner conforming to Good Laboratory Practices and consider at all times that material under test should be regarded as a potential biohazard if mishandled.

PRESENTATION

Pro-Lab PL.530 Oxacillin Supplement is supplied 10 vials per box (lyophilized).

STORAGE

Pro-Lab PL.530 Oxacillin Supplement must be stored at 2-8°C. Kept under these conditions it may be used up to the date of expiry shown on the product label.

REFERENCES

1. **Rutala W.A., Katz E.B., Sherertz R.J., Sarubbi F.A. Jr.** 1983. Environmental study of a methicillin resistant *Staphylococcus aureus* epidemic in a burn unit. *J. Clin. Microbiol.* 18(3):683-688.
2. **Saravolatz L.D., Pohlod D.J., Arking L.M.** 1982. Community-acquired methicillin-resistant *Staphylococcus aureus* infections: a new source for nosocomial outbreaks. *Ann. Intern. Med.* 97(3):325-329.
3. **Lally R.T., Ederer M.N., Woolfrey B.F.** 1985. Evaluation of mannitol salt agar with oxacillin as a screening medium for methicillin-resistant *Staphylococcus aureus*. *J. Clin. Microbiol.* 22(4):501-504.

