



MRSA (NYR MRSA16): sc-73327

BACKGROUND

MRSA (methicillin-resistant *Staphylococcus aureus*), also known as multiple-resistant *S. aureus* or oxacillin-resistant *S. aureus* (ORSA), is a variation of the common bacteria, *Staphylococcus aureus*. MRSA has the ability to withstand β -lactam antibiotic treatments such as methicillin and penicillin. MRSA is prominent in community associated environments and, in particular, it is common to hospitals. For this reason, MRSA has become a major healthcare problem in many developed countries. Patients with weakened immune systems or open wounds are at a higher risk of infection than the general public and tend to experience more severe symptoms with infection. Potential sites of infection include the respiratory tract, urinary tract, open wounds, anterior nares and intravenous catheters. Severe MRSA infections can result in necrotizing fasciitis or death.

REFERENCES

- Schentag, J.J., et al. 1998. Genesis of methicillin-resistant *Staphylococcus aureus* (MRSA), how treatment of MRSA infections has selected for vancomycin-resistant *Enterococcus faecium*, and the importance of anti-biotic management and infection control. Clin. Infect. Dis. 26: 1204-1214.
- Okuma, K., et al. 2002. Dissemination of new methicillin-resistant *Staphylococcus aureus* clones in the community. J. Clin. Microbiol. 40: 4289-4294.
- Blot, S.I., et al. 2002. Outcome and attributable mortality in critically ill patients with bacteremia involving methicillin-susceptible and methicillin-resistant *Staphylococcus aureus*. Arch. Intern. Med. 162: 2229-2235.
- Mongkolrattanothai, K., et al. 2003. Severe *Staphylococcus aureus* infections caused by clonally related community-acquired methicillin-susceptible and methicillin-resistant isolates. Clin. Infect. Dis. 37: 1050-1058.
- Noskin, G.A., et al. 2005. The burden of *Staphylococcus aureus* infections on hospitals in the United States: an analysis of the 2000 and 2001 Nationwide Inpatient Sample Database. Arch. Intern. Med. 165: 1756-1761.
- Siegman-Igra, Y., et al. 2005. The role of vancomycin in the persistence or recurrence of *Staphylococcus aureus* bacteraemia. Scand. J. Infect. Dis. 37: 572-578.
- Schito, G.C. 2006. The importance of the development of antibiotic resistance in *Staphylococcus aureus*. Clin. Microbiol. Infect.
- Wyllie, D.H., et al. 2006. Mortality after *Staphylococcus aureus* bacteraemia in two hospitals in Oxfordshire, 1997-2003: cohort study. BMJ 333: 281.
- Bootsma, M.C., et al. 2006. Controlling methicillin-resistant *Staphylococcus aureus*: quantifying the effects of interventions and rapid diagnostic testing. Proc. Natl. Acad. Sci. USA 103: 5620-5625.

SOURCE

MRSA (NYR MRSA16) is a mouse monoclonal antibody raised against a protein of MRSA origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MRSA (NYR MRSA16) is recommended for detection of methicillin-resistant *Staphylococcus aureus* by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SELECT PRODUCT CITATIONS

- Apostolova, M., et al. 2012. Deep vein thrombosis, ecchyma gangrenosum and heparin-induced thrombocytopenia occurring in a man with a heterozygous Factor V Leiden mutation. Hematol. Rep. 4: e20.
- Ghanbar, S., et al. 2018. A new strategy for battling bacterial resistance: turning potent, non-selective and potentially non-resistance-inducing biocides into selective ones. Nanomedicine 14: 471-481.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.