



Staphylococcus epidermidis (17-5): sc-58041

BACKGROUND

Staphylococcus epidermidis is a Gram-positive coccus that is a frequent contaminant in the clinical laboratory. It is a member of the coagulase-negative *Staphylococci* group., which commonly lives on the skin and mucosal surfaces of humans. The *Staphylococcus epidermidis* microbe produces β -lactamase, enzymes which break down the β -lactam ring of the penicillin molecule, making it resistant to most penicillin and cephalosporins. In addition, *Staphylococcus epidermidis* can form a biofilm which is resistant to antimicrobial agents. *Staphylococcus epidermidis*, previously thought to be non-pathogenic, is a significant cause of infection in immune compromised individuals and individuals with indwelling prosthetic devices or catheters. Infections frequently cannot be cured without the removal of the implanted or intravascular devices, and can lead to long hospitalizations, surgery or death.

REFERENCES

1. Curran, J.P. and Al-Salihi, F.L. 1980. Neonatal staphylococcal scalded skin syndrome: massive outbreak due to an unusual phage type. *Pediatrics* 66: 285-290.
2. Hofer, M.F., Newell, K., Duke, R.C., Schlievert, P.M., Freed, J.H. and Leung, D.Y. 1996. Differential effects of Staphylococcal Toxic Shock Syndrome Toxin-1 on B cell apoptosis. *Proc. Natl. Acad. Sci. USA* 93: 5425-5430.
3. Hiramatsu, K., Hanaki, H., Ino, T., Yabuta, K., Oguri, T. and Tenover, F.C. 1997. Methicillin-resistant *Staphylococcus aureus* clinical strain with reduced vancomycin susceptibility. *J. Antimicrob. Chemother.* 40: 135-136.
4. Jabara, H.H. and Geha, R.S. 1997. The superantigen Toxic Shock Syndrome Toxin-1 induces CD40 ligand expression and modulates IgE isotype switching. *Int. Immunol.* 8: 1503-1510.
5. Chambers, H.F. 2001. The changing epidemiology of *Staphylococcus aureus*? *Emerging Infect. Dis.* 7: 178-182.
6. Chang, S., Sievert, D.M., Hageman, J.C., Boulton, M.L., Tenover, F.C., Downes, F.P., Shah, S., Rudrik, J.T., Pupp, G.R., Brown, W.J., Cardo, D., Fridkin, S.K.; Vancomycin-Resistant *Staphylococcus aureus* Investigative Team. 2003. Infection with vancomycin-resistant *Staphylococcus aureus* containing the vanA resistance gene. *N. Engl. J. Med.* 348: 1342-1347.
7. Buonpane, R.A., Moza, B., Sundberg, E.J. and Kranz, D.M. 2005. Characterization of T cell receptors engineered for high affinity against Toxic Shock Syndrome Toxin-1. *J. Mol. Biol.* 353: 308-321.
8. Parsonnet, J., Hansmann, M.A., Delaney, M.L., Modern, P.A., Dubois, A.M., Wieland-Alter, W., Wissemann, K.W., Wild, J.E., Jones, M.B., Seymour, J.L. and Onderdonk, A.B. 2005. Prevalence of Toxic Shock Syndrome Toxin 1-producing *Staphylococcus aureus* and the presence of antibodies to this superantigen in menstruating women. *J. Clin. Microbiol.* 43: 4628-4634.

SOURCE

Staphylococcus epidermidis (17-5) is a mouse monoclonal antibody raised against *Staphylococcus epidermidis* whole bacteria.

RESEARCH USE

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

PRODUCT

Each vial contains 500 μ l ascites containing IgG₃ in PBS with < 0.1% sodium azide and 1% BSA.

APPLICATIONS

Staphylococcus epidermidis (17-5) is recommended for detection of *Staphylococcus epidermidis* by immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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