

Native Staphylococcus Aureus Cells, Heat-Inactivated

Cat. No. STA-578 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Heat-killed *Staphylococcus aureus* cells in dextran solution. Antigen is intended for use as a positive control in immunoassay development for *Staphylococcus* detection.

Background

Staphylococcus aureus is a Gram-positive, round-shaped bacterium, a member of the Firmicutes, and in humans is frequently found in the upper respiratory tract and on the skin. *S. aureus* can also survive on dogs, cats, and horses, and can cause bumblefoot in chickens. The nasal region has been implicated as the most important site of transfer between dogs and humans. *S. aureus* is one of the causal agents of mastitis in dairy cows. Although *S. aureus* usually acts as a commensal of the human microbiota it can also become an opportunistic pathogen, being a common cause of skin infections including abscesses, respiratory infections such as sinusitis, and food poisoning. Pathogenic strains often promote infections by producing virulence factors such as potent protein toxins, and the expression of a cell-surface protein that binds and inactivates antibodies. The emergence of antibiotic-resistant strains of *S. aureus* such as methicillin-resistant *S. aureus* (MRSA) is a worldwide problem in clinical medicine. *S. aureus* is also responsible for food poisoning. Depending on the strain, *S. aureus* is capable of secreting several exotoxins (Oliveira et al., 2018). Many of these toxins are associated with specific diseases and it is capable of generating toxins that produce food poisoning in the human body. Its incubation period lasts one to six hours, with the illness itself lasting from 30 minutes to 3 days. Despite much research and development, no vaccine for *S. aureus* has been approved. Up to 50,000 deaths each year in the USA are linked with *S. aureus* infections.

Notes

This product is intended for research and manufacturing uses only. It is not a

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diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Type	Native
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ClassID 1	Infectious Disease
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GENE INFORMATION

Synonyms	Staphylococcus Aureus
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