



"Ready & Easy-to-use" kits.
Lyophilised product



Transport and storage at room temperature.
Shelf-life: 24 months



CE marked

ANTIMICROBIAL
RESISTANCE & SEPSIS

MSA
MULTIPLEX

Methicillin-resistant *Staphylococcus aureus*

- ▶ *Staphylococcus aureus* (*S. aureus*) is one of the greatest concerns of human pathogens because of its intrinsic virulence and its ability to cause a diverse array of life-threatening infections in consequence of its capacity to adapt to different environmental condition.

Besides the growing significance of *S. aureus* as pathogen of nosocomial infections, its resistance against several antibiotics has become increasingly worse. *Methicillin resistant* strains of *Staphylococcus aureus* (MRSA) is not only resistant against all beta-lactam antibiotics but is also often multi-resistant against other antibiotics, thus limiting the treatment options. MRSA infections involve the skin or deeper areas of the body in the form of, as wound infections or sepsis.

- ▶ *S. aureus* and MRSA are spread from fomite to person and from person to person yet few environmental reservoirs outside the healthcare setting and closed communities. MRSA is a growing problem in shared facilities such **hospitals, nursing homes**. Studies indicate that the incidence of MRSA in the past few years has extensively increased worldwide. However, there are considerable differences between various countries.

Urgently needed measures in this case are the introduction of standard hygiene and adequate outbreak management, as well as control of antibiotic use. In particular, the introduction of MRSA screening based on rapid and reliable diagnosis during or even better before admission of patients is indispensable.

- ▶ The adoption of molecular techniques has allowed for **more rapid detection and identification of MRSA** in clinical samples. Thus, it provides the critical information for determining appropriate therapies for patients with suspected MRSA infections and controlling of the outbreak.

Methicillin-resistant *Staphylococcus aureus*

VIASURE Methicillin-resistant *Staphylococcus aureus* Real Time PCR Detection Kit is designed for the specific identification and differentiation *methicillin-resistant Staphylococcus aureus* (MRSA), *methicillin-sensitive Staphylococcus aureus* (MSSA) and/or *methicillin-resistant coagulase-negative Staphylococci* (MRCoNS) from isolated colonies from human nasal, pharyngeal and perianal swabs plated onto chromogenic solid medium.

This test is intended to be used as an aid in the diagnosis of MRSA infection in combination with patient's clinical signs and symptoms and epidemiological risk factors.

DNA is extracted from colonies, multiplied using Real Time amplification and detected using specific primers and a fluorescent reporter dye probes for identification of *Staphylococcus aureus* and determination of methicillin resistance.

► Analytical sensitivity

VIASURE Methicillin-resistant *Staphylococcus aureus* Real Time PCR Detection Kit has a detection limit of ≥ 100 DNA copies per reaction for *S. aureus* (SA442/CoA genes), ≥ 50 DNA copies per reaction for *mecA/mecC* genes and ≥ 10 DNA copies per reaction for SCCmec-orfX junction (Figure 1, 2 and 3).

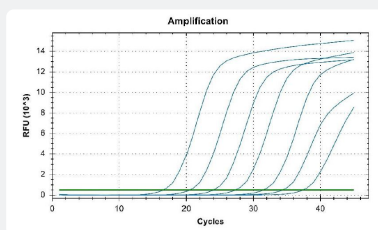


Figure 1.

Dilution series of *S. aureus* (SA442/CoA genes) (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix MRSA 1: SAU + MEC A/C, channel FAM).

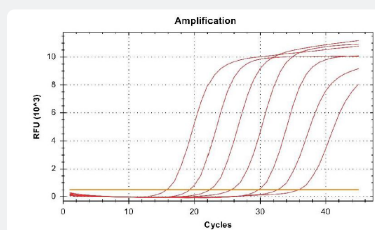


Figure 2.

Dilution series of *mecA/mecC* genes (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix MRSA 1: SAU + MEC A/C, channel ROX).

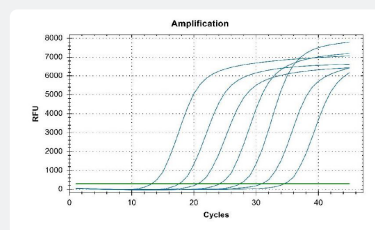


Figure 3.

Dilution series of SCCmec-orfX junction (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix MRSA 2: ORFX, channel FAM).

► References - VIASURE Methicillin-resistant *Staphylococcus aureus* Real Time PCR Detection Kit

6 x 8-well strips, low profile	VS-MSA106L	6 x 8-well strips, high profile	VS-MSA106H
12 x 8-well strips, low profile	VS-MSA112L	12 x 8-well strips, high profile	VS-MSA112H
96-well plate, low profile	VS-MSA113L	96-well plate, high profile	VS-MSA113H

For more information and use procedure, read the instructions for use included in this product.