**Staphylococcus aureus, Strain 95938**

Catalog No. NR-46071

For research use only. Not for human use.

**Contributor:**
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**Manufacturer:**
BEI Resources

**Product Description:**

**Bacteria Classification:** *Staphylococcaceae, Staphylococcus*

**Species:** *Staphylococcus aureus*

**Strain:** 95938 (also referred to as USA500)

**NARSA Catalog Number:** NRS385

**Original Source:** *Staphylococcus aureus* (S. aureus), strain 95938 was isolated from a bloodstream sample in Connecticut, USA.

**Comments:** S. aureus, strain 95938 is a hospital-acquired methicillin-resistant *S. aureus* (HA-MRSA) strain. S. aureus, strain 95938 was deposited as resistant to erythromycin, clindamycin, trimethoprim/sulfamethoxazole, levofloxacin, gentamicin and tetracycline; positive for mec (subtype IV), sea and seb; MLST sequence type (ST) 8; pulsed-field type USA500; eGenomic spa type 7, eGenomic spa repeats YHGCMQBLO; Ridom spa type 1064; agr group I. S. aureus, strain 95938 is a USA500 isolate. USA500 isolates have a common MLST sequence type (ST 8), spa motif (MBQBLLO) and agr group (I) and are PVL-negative. USA500 isolates are multi-drug resistant healthcare-associated MRSA strains, but have been also been associated with sporadic community-acquired infections. USA500 is believed to be the predecessor of the most common community-associated pulsed-field type, USA300. Note: Methicillin is no longer clinically used, however, the term methicillin-resistant *Staphylococcus aureus* (MRSA) continues to be used to describe *S. aureus* strains resistant to all penicillins.

*Staphylococcus* is a Gram-positive, cluster-forming coccus that normally inhabits human nasal passages, skin and mucous membranes. It is also a human pathogen and causes a variety of pus-forming infections as well as food-poisoning and toxic shock syndrome. In 1961, two years after the introduction of methicillin, a penicillinase-resistant penicillin, *S. aureus* developed methicillin-resistance due to acquisition of the mecA gene. For the last forty-five years hospital-acquired (HA) MRSA strains have disseminated worldwide. More recently, MRSA strains have been isolated that are not hospital acquired and are referred to as community-associated (CA) MRSA. These CA-MRSA strains differ phenotypically and genotypically from HA-MRSA strains and they are more frequently recovered from skin and soft tissue sources rather than post-operative wounds.

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

**Note:** If homogeneity is required for your intended use, please purify prior to initiating work.

**Packaging/Storage:**

NR-46071 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

**Media:**

- Brain Heart Infusion broth or Tryptic Soy broth or equivalent
- Brain Heart Infusion agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

**Incubation:**

- Temperature: 37°C
- Atmosphere: Aerobic

**Propagation:**

1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 18 to 24 hours.

**Citation:**

Acknowledgment for publications should read “The following reagent was provided by the Network on Antimicrobial Resistance in *Staphylococcus aureus* (NARSA) for distribution by BEI Resources, NIAID, NIH: *Staphylococcus aureus*, Strain 95938, NR-46071.”

**Biosafety Level:**

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References:
1. NARSA, NRS385.

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